HAMILTON COUNTY
PANDEMIC INFLUENZA RESPONSE PLAN

MARCH 2007

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CORE PLAN

I. Lead Agency

The Chattanooga-Hamilton County Health Department (CHCHD) is the agency responsible for providing public health planning for pandemic influenza in Hamilton County, Tennessee.

II. Support Agencies

Support agencies that will work with CHCHD in the detection and management of pandemic influenza within Hamilton County are listed below:

Hamilton County Emergency Management
Chattanooga-Hamilton County Red Cross
Hamilton County Social Services
University of Tennessee-Hamilton County Extension
Tennessee Emergency Management Agency, East Region
Tennessee Office of Homeland Security, East Region
Tennessee Department of Health
Tennessee Department of Agriculture
United States Department of Agriculture

III. Purpose

The purpose of this plan is to provide an ethical and evidence-based framework for the public health response to pandemic influenza or an influenza strain with pandemic potential. It also provides guidance for planning by individuals and other sectors of society. During a pandemic or outbreak of a novel influenza virus with pandemic potential, this document will serve as an operational annex for Emergency Support Function 8, which is part of the Hamilton County Emergency Management Plan (HCEMP). The HCEMP will be implemented during a pandemic.

IV. Situation

Novel influenza viruses periodically emerge to cause global epidemics, known as pandemics, either directly from a mutated animal influenza virus or out of combination of an animal virus with a circulating human influenza virus. Such viruses circumvent normal immune defenses and cause morbidity and mortality at higher rates than seasonal influenza strains; compared to seasonal influenza, a larger proportion of deaths occur in persons aged <65 years.

Novel influenza viruses that cause pandemics are transmitted from person to person in the same manner as seasonal influenza: typically, by mucosal inoculation with large respiratory droplets caused by coughing or sneezing or by touching contaminated environmental surfaces and subsequently touching one's mouth, nose or eyes.

Ten pandemics have occurred in the past 300 years; there is historical evidence of the success or failure of various strategies to contain or control the spread of influenza. With the exception of a vaccine, antiviral medication, and advanced medical care, many of the strategies used to respond to a modern pandemic are the same as the effective measures of previous generations. For example, though the compulsory restriction of movement in or out of certain regions, known as "cordon sanitaire," was not effective in any but the world's

most remote island communities, broad community strategies used to reduce dense social contact were effective and the failure to use such strategies was devastating. The key activities to minimize the impact of a pandemic influenza virus are:

1) Surveillance for disease activity for situational awareness and timely activation of response strategies

2) Accurate communication within and among volunteer and professional responding organizations and with the general public

3) Use of social distancing measures to reduce unnecessary close contacts during a pandemic wave

4) Distribution and use of all available medical resources and personnel

Pandemic Threat Categories Defined by World Health Organization (WHO):
The duration of each period or phase is unknown, but the emergence of pandemic viruses is considered inevitable.

PERIOD	PHASE	DESCRIPTION
Interpandemic No human cases of novel influenza virus	1	No animal influenza viruses circulating with the potential to infect humans
	2	Animal influenza virus is circulating with the potential to infect humans
Pandemic Alert Human cases with increasingly efficient human-to-human spread	3 March 2007	Human cases with rare or no human-to-human spread
	4	Small clusters caused by human-to-human spread
	5	Large regional clusters caused by human-to-human spread
Pandemic Worldwide epidemic	6	Geographically widespread and efficiently spread from human-to-human

V. Planning Assumptions

A. Basis of Plan

1) The plan is based upon a pandemic of the severity of the 1918-1919 influenza pandemic; public health interventions described herein represent maximal interventions under these conditions. If the characteristics of the actual event do not reflect planning assumptions, responses will be modified accordingly.

2) While focusing primarily on the response to a pandemic (WHO Phase 6), the plan also addresses the response to imported or acquired human infections with a novel influenza virus with pandemic potential (WHO Phases 3-5).

B. Objectives of Pandemic Planning

1) The primary objective is to minimize morbidity and mortality from disease.

2) The secondary objectives are to preserve social function and minimize economic disruption.

C. Assumptions for Local Planning

1) The plan reflects current federal, state, and local response capacity and will be revised annually in light of changes in capacity or scientific understanding.

2) Tennessee state and local pandemic plans are consistent with each other and with federal guidelines unless these guidelines fail to reflect the best available scientific evidence.

3) Public education and empowerment of individuals, businesses, and communities to act to protect themselves are a primary focus of planning efforts; the capacity to meet the needs of individuals will be limited by the magnitude of disease and scarcity of specific therapeutic and prophylactic interventions and the limited utility of legal measures to control disease spread.

D. Disease Transmission Assumptions

1) Incubation period averages 2 days (range 1-10; WHO recommends that, if quarantine is used, it be used up to 7 days following exposure). Sick patients may shed virus up to 1 day before symptom onset, though transmission of disease before symptoms begin is unusual.

2) The peak infectious period is first 2 days of illness (children and immuno-compromised persons shed more virus and for a longer time).

3) Each ill person could cause an average of 2-3 secondary cases if no interventions are implemented.

4) There will be at least 2 “waves” (local epidemics) of pandemic disease in most communities; they will be more severe if they occur in fall/winter.

5) Each wave of pandemic disease in a community will last 6-8 weeks.

6) The entire pandemic period (all waves) will last about 2 years before the virus becomes a routine seasonal influenza strain.

7) Disease outbreaks may occur in multiple locations simultaneously, or in isolated pockets.

E. Clinical Assumptions during the Entire Pandemic Period

1) All persons are susceptible to the virus.

2) Clinical disease attack rate of $\geq$30% (range: 40% of school-age children to 20% of working adults).

3) 50% of clinically-ill (15% of population) will seek outpatient medical care.

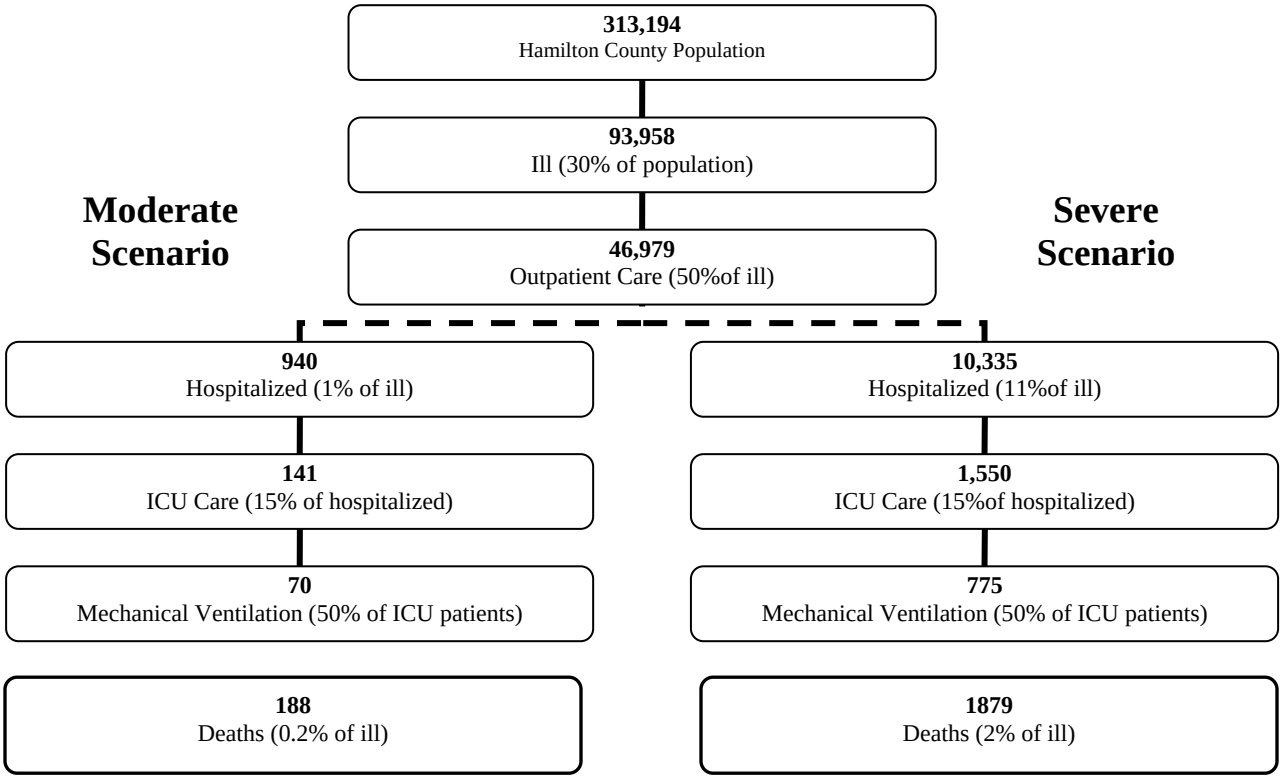
4) 2%-20% of these will be hospitalized, depending on virulence of strain.

5) Overall mortality estimates range from 0.2% to 2% of all clinically ill patients.

6) During an 8-week wave, ~40% of employees may be absent from work because of fear, illness or to care for a family member (not including absenteeism if schools are closed).

7) Hospitals will have ≥25% more patients than normal needing hospitalization during the local pandemic wave.

F. Estimate of Burden of Illness in Hamilton County



G. Assumptions about the Pandemic Period (WHO Phases 3-5)

1) During the pandemic alert period, a novel influenza virus causes infection among humans who have direct contact with infected animals and, in some cases, through inefficient transmission from person to person. By definition, during the Pandemic Alert Period, cases are sporadic or limited in number with human-to-human spread not yet highly efficient. Limited clusters of disease during this period can be quenched with aggressive steps to stop spread and treat infected individuals.

2) Individual case management, as outlined in Section 7, Supplement 2, will be conducted during the Pandemic Alert Phase. Isolation or quarantine,

including the use of court orders when necessary, would be employed to prevent further spread of the virus. Antivirals would be used during this time for post-exposure prophylaxis or aggressive early treatment of cases (supplies permitting), as outlined in Section 6.

3) Efforts to identify and prevent spread of disease from imported human cases and from human cases resulting from contact with infected animals will continue until community transmission has been established in the United States. Community transmission is defined as transmission from person to person in the United States with a loss of clear epidemiologic links among cases. This may occur some time after the WHO declares that a pandemic has begun (WHO Phase 6).

VI. Concept of Operations

A. WHO Phases 3-5 (Pandemic Alert Period)

The lead agency for addressing influenza disease among animals is the Tennessee Department of Agriculture. CHCHD will provide support to the Department of Agriculture in the prevention of human infections and in surveillance and management of human disease as it pertains to contact with infected animals.

CHCHD is the lead agency in Hamilton County for responding to human influenza disease caused by a novel influenza virus with pandemic potential, whether imported from an area with ongoing disease transmission or acquired directly from an animal in Hamilton County. Guidance for hospital management and investigation of cases during the pandemic alert period is located in Section 4. The CDC will provide additional support and guidance regarding human infection management during this period.

The primary activities during this period are surveillance for imported cases or cases contracted from contact with infected animals. Any detected cases will be aggressively investigated and contacts are to be identified, quarantined, and treated, as appropriate. The objective is to stop the spread of the virus into the general community.

B. WHO Phase 6 (Pandemic)

The lead agency for response to a pandemic in Tennessee is the Tennessee Department of Health. The lead agency for the local public health response to a pandemic is the CHCHD. Local response will be conducted in collaboration with state agencies, and the state response will be conducted in collaboration with federal response agencies; primarily, the Department of Health and Human Services (HHS) and Department of Homeland Security (DHS).

The primary activities are surveillance for disease, communication, implementation of general social distancing measures, support of medical care services, appropriate use of available antiviral medications and vaccines, and response workforce support. The implementation of response measures is the responsibility of local communities and local public health authorities.

VII. Section Summaries

Public health pandemic response policies are outlined in the attached sections. Supplements contain additional detail on policies and procedures in a specific aspect of the section. Each section is briefly summarized below.

Section 1. Continuity of Operations
This section lists the essential operations at the CHCHD that must be sustained, even during a pandemic, and how the health department will continue operations during a pandemic.

Section 2. Disease Surveillance
This section outlines the use and enhancement of current influenza surveillance strategies to monitor for early human infections caused by a novel influenza virus with pandemic potential and to track and respond to the spread of influenza during a pandemic.

Section 3. Laboratory Diagnostics
This section discusses laboratory capacity, suspect case reporting, specimen collection, shipping, and testing. Attachment A is the Local Laboratory Contact Information List.

Section 4. Hospital Planning
This section summarizes the role of the CHCHD's Regional Hospital Coordinator. This section also provides pandemic influenza planning guidance to hospitals There are four attachments to this section: Hospital Planning Checklist, Hospital Planning Resources, Pandemic Influenza Coordinator Contact List, and Hospital Asset List.

Section 5. Vaccine Distribution and Use
This section describes the principles of vaccine use. If supplies are limited, as they are under current manufacturing conditions, all vaccine will be administered in designated health department clinics designated for this purpose over the course of months. All vaccinations will be recorded and reported as required by the federal government. Vaccine will be administered to people according to priority groupings, sub-prioritized within the broader groups that are designated by the federal government. Priority groupings are subject to change depending upon the nature of the virus and upon the ultimate decisions about priority groups. There are four attachments to this section: Cold Chain Requirements, Vaccination Sites, Staffing Formulas, and Mass Clinic Supply and Equipment List.

Section 6. Antiviral Drug Distribution and Use
This section describes the policies for the use of antiviral drugs to prevent spread of novel influenza virus outbreaks with pandemic potential and to treat patients during a pandemic. Principles for use are based upon currently available antiviral medications. Treatment courses will be pre-positioned in Tennessee in collaboration with the federal Strategic National Stockpile program. This section also refers to the use of antiviral medications stockpiled by hospitals for the use of hospital personnel (outside the state or federal stockpile programs).

Section 7. Community Interventions
This section outlines social distancing and other community interventions that may be implemented to respond to isolated cases of illness caused by a novel influenza virus with pandemic potential and during a pandemic. The main section reviews general community

distancing measures to be implemented during a pandemic. The criteria for the implementation of social distancing strategies will be uniform across the state.

Supplement one (Legal Authority) summarizes the legal authority of the Commissioner of Health and Health Officers to implement measures to prevent the spread of disease that may be used during pre-pandemic outbreak investigation and case management, as well as during a pandemic.

Supplement two (Pre-Pandemic Case Management) covers the management of outbreaks or isolated cases of a novel influenza virus with pandemic potential. Such outbreaks during the pre-pandemic period will be actively investigated and individual cases and contacts will be tracked and monitored to stamp out such outbreaks. Once a pandemic begins and the influenza virus is spreading easily from person to person, individual case management becomes both inefficient and ineffective at controlling disease; at that point, the focus of disease control shifts to broad community interventions outlined in the main section.

Supplement three (School and Child Care Facility Interventions) describes the strategies for controlling influenza among children in schools and child care facilities. The strategies are outlined in stages that parallel the stages of other general community interventions in the main section document. Colleges and universities are not treated like secondary schools and child care facilities, but are considered to be part of the general community with special considerations.

Supplement four (Regional Mortuary Services Plan) describes CHCHD's plan to involve area providers, in conjunction with the Medical Examiner's Office, in planning for the preparation, storage, and burial of victims during a pandemic.

Section 8. Public Health Communications

This section outlines the communication goals and strategies of public health to meet the information needs of the general public, ill persons who are isolated or exposed persons quarantined at home, the media, the medical community and other pandemic response partners.

Section 9. Workforce and Social Support

This section outlines resources and issues for support to the public health workforce and social support to communities. The attachments to this section include a Local Response Resource List, Checklist for Individual and Family Planning, and Emergency Kit Guide.

VIII. Training

Plans will be drilled in partnership with other stakeholders and updated to correct weaknesses identified through these exercises.

IX. Acronyms

AI	Avian Influenza
AIVATS	Avian Influenza Virus Antigen Test Strip
APHIS	Animal and Plant Health Inspection Service
CDC	Centers for Disease Control and Prevention
CEDS	Communicable and Environmental Disease Services
CERC	Crisis and Emergency Risk Communication
CHCHD	Chattanooga Hamilton County Health Department
CNS	Central Nervous System
COOP	Continuity of Operations Plan
DEA	Drug Enforcement Agency
DHS	Department of Homeland Security
DOG	Disaster Operations Guide
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FADD	Foreign Animal Disease Diagnostician
FDA	Federal Drug Administration
HCEMP	Hamilton County Emergency Management Plan
HEICS	Hospital Emergency Incident Command System
HEPA	High Efficiency Particulate Air (filter)
HHS	Department of Health and Human Services
HPAI	Highly Pathogenic Avian Influenza
HRSA	Health Resources and Services Administration
HRTS	Hospital Resource Tracking System

ICP	Infection Control Practitioner
ICU	Intensive Care Unit
IHC	Immunohistochemical
ILI	Influenza-like illness
IND	Investigational New Drug
IT	Information Technology
JIC	Joint Information Center
LEA	Local Educational Authority
LPAI	Low Pathogenic Avian Influenza
LRN	Laboratory Response Network
MAA	Mutual Aid Agreement
MOU	Memorandum of Understanding
NAHLN	National Animal Health Laboratory Network
NEISS-CADE	National Electronic Injury Surveillance System Cooperative Adverse Drug Event project
NIH	National Institutes of Health
NPIP	National Poultry Improvement Plan
NRP	National Response Plan
NVSL	National Veterinary Service Laboratory
OMS	Outbreak Management System
PAPR	Powered Air Purifying Respirator
PCR	Polymerase chain reaction
PHIT	Public Health Investigation Team
PIO	Public Information Officer
POD	Points of Dispensing
PPE	Personal Protective Equipment

PTBMIS	Patient Tracking Billing Management Information System
RHC	Regional Hospital Coordinator
RT-PCR	Reverse-transcriptase polymerase chain reaction
SARS	Severe Acute Respiratory Syndrome
SITC	Smuggling Interdiction Trade Compliance
SNS	Strategic National Stockpile
SPN	Sentinel Provider Network
STD	Sexually-Transmitted Disease
THA	Tennessee Hospital Association
THAN	Tennessee Health Alert Network
TB	Tuberculosis
TCA	Tennessee Code Annotated
TDH	Tennessee Department of Health
TEMA	Tennessee Emergency Management Agency
TEMP	Tennessee Emergency Management Plan
TPA	Tennessee Pharmacy Association
TWRA	Tennessee Wildlife Resources Agency
VAERS	Vaccine Adverse Event Reporting System
WNV	West Nile Virus
WHO	World Health Organization

OPERATIONS PLAN

Section 1 Continuity of Operations

I. Introduction

The purpose of this section is to outline the continuity of operations plan (COOP) for essential health department services and functions that will enable the CHCHD to respond effectively and efficiently in a pandemic situation.

The COOP is based on assumptions about conditions that could exist both in the community and within the Health Department if a highly contagious disease is present in a significant portion of the Hamilton County population. However, it must be recognized that the actual event may present situations and dilemmas that were not anticipated, or could not have been predicted with any certainty.

Disease rates of Health Department staff may be higher or lower than anticipated and individual departments may be more or less impacted by absenteeism than others. There may be a higher demand for some services than anticipated due to unique characteristics of the situation. It may not be possible to offer some services in a manner that normal conditions would allow due to the absence of critical, specialized staff. In the presence of a highly communicable and deadly disease in the community, the decision may be made to limit, modify or suspend all face-to-face services to limit the potential exposure of clients and staff to the disease.

The determination of what is considered an essential service or operation may vary depending on the length of time in question, the degree of absenteeism of staff and the need for staff to be involved with tasks outside the usual health department services. An operation that is determined to be “non-essential” at 2 – 6 weeks may be deemed “essential” after 3 - 6 months (e.g. billing TennCare or Medicare for patient services). All services might be suspended for a day or a few days if circumstances dictated that health department staff be diverted to operate mass clinics, called Points of Dispensing (PODs), or some other critical operation in the community.

The COOP will also incorporate the implementation of any State Health Department approved measures to relax program guidelines to allow for reduction/expansion of services. These measures may be known/approved during the planning stage or not until the actual event. In addition, federal guidelines and mandates may be issued at the time of an event which could modify what is considered an essential service or function.

The COOP will be applicable to other disaster scenarios in which a large number of employees are incapacitated or unable to reach the Health Department, the Health Department sustains significant damage to its physical resources, or the community experiences a catastrophic event resulting in wide-spread damage and/or mortality requiring modification of our public health response and priorities.

As a result, this plan should be viewed as a guide to assist in decision-making regarding the continuing operations of the Health Department in the event of a pandemic or catastrophic event; it is not intended to serve as protocol. A true disaster situation would require a dynamic response from the Health Department, frequent evaluation of the conditions within the Health Department and in the community, flexibility in applying the guidelines of this plan, and a readiness and ability to adapt these guidelines as events unfold.

II. Approval for Activating and Implementing the Continuity of Operations Plan

The Health Department Administrator has the authority to activate, modify and terminate the Continuity of Operations Plan, including altering operations, making decisions to divert employees as indicated, and other planning, response and recovery activities.

In the event of a pandemic, management of the agency, including the authority to activate, modify and terminate the plan, is delegated to the following persons in the order of succession shown below:

1) Administrator
2) Director of Clinical Services
3) Director of Administrative Services

If the designated individual is unavailable, authority will pass to the next individual on the list. "Unavailable" is defined as:

- The designated person is incapable of carrying out the assigned duties by reason of death, disability, or distance from/response time to the operations facility.
- The designated person is unable to be contacted within a reasonable time.
- The designated person has already been assigned to other emergency activities.

The designated individual retains all assigned obligations, duties, and responsibilities until officially relieved by an individual higher on the list of succession.

III. Triggers for Activating the Continuity of Operations Plan

The Health Department Administrator (or designee) will consider the criteria listed below in making the decision to activate the Continuity of Operations Plan in determining what services/operations will be retained and what services/operations will not be retained:

1) Individual clinics/areas have a staff absenteeism rate of 50 – 60 % or more (requiring significant internal staffing shifts).
2) Critical or specialized staff are absent or unavailable.
3) Overall internal staff absenteeism rate of 20% or more.
4) General school and daycare closure.
5) The presence of a highly communicable, deadly disease in the community.
6) Community illness rate of 30% or more.
7) Need to divert a large number of staff to non-routine public health activity (e.g. running PODs)
8) Physical resources have sustained incapacitating damage
9) Material resources (supplies, medications, etc.) must be rationed or are unavailable

IV. Pre-Event Preparation

Prior to a pandemic or catastrophic event:

A. Identify services/operations that will be retained during an event

1) Assess operations and identify which health department services and operations should be retained during an event. These services/operations would be those that must be provided or performed even during extreme circumstances and are critical to accomplishing the mission of the health department. (Category A services/operations; see Attachment A)

2) Identify services/operations that can be suspended while staff is reassigned to more critical roles (Category B services/operations; see Attachment B).

3) Assess potential changes in demands for services (decreases and increases) that may occur.

4) Identify alternative ways for clients to access the health department's services. Provide services via phone, internet, fax or mail to maximize efficiency or minimize person-to-person contact whenever possible.

B. Identify job functions required to provide retained services/operations

1) Identify job functions required to provide retained services and operations on-site.

a) Identify critical staff numbers and skills required to maintain retained services and operations.

b) Clearly document actions of identified job functions. Develop documentation of job functions, processes and tasks checklists for those retained services, operations and critical functions that will be provided so that reassigned staff can fulfill these duties (e.g. job action sheets).

2) Identify which job functions could be done remotely and enable employees to work from home where possible.

a) Evaluate current capacity of employee access from home (who has internet/intranet access? What type of internet/intranet access do they have?)

b) Identify what must be done to allow remote access for job functions or operations prior to an event or as quickly as possible at the time of an event.

c) Test as appropriate.

3) Train employees how they will be expected to carry out the continuity plan.

a) Cross train employees to fill essential functions if needed.

b) Plan just-in-time training for employees who have been re-assigned.

4) Identify contingency plan for augmenting staff in cases of high absenteeism rates

Augmentation of public health staff may be difficult in light of increased demands in the healthcare community to care for ill or injured persons. While there may be CHCHD Emergency

Preparedness Volunteers or reassigned city or county personnel available, the focus will be on reassignment and shifting of personnel within the Health Department to meet staffing needs for the provision of essential services/operations.

C. Product and Service Providers

1) Identify ways to expedite purchases that may be necessary and unforeseen during each stage.

2) Assess suppliers of critical services/products required to maintain essential services and operations:

a) Collect contact information for current suppliers

b) Discuss with suppliers their plan for ongoing services and/or shipments in the event of absences, shortages, or disruptions in transportation systems.

3) Identify alternate suppliers for critical services/products if regular suppliers cannot provide them and collect contact information.

4) Stockpile critical supplies – supplement existing inventory with sufficient critical supplies to keep essential services functioning for a minimum of 30 days.

D. Personnel Emergency Policies

1) Pre-establish mechanisms that will be implemented in the work place in the event of a pandemic event to minimize the potential exposure to communicable disease and protect the health of staff:

a) Modify frequency and type of client contact processes to minimize face-to-face contact with clients, e.g. no walk-in service, phone triage, routine medication refills via the front window.

b) Enforce Respiratory Hygiene/Cough Etiquette protocol for staff and client

c) Make hand sanitizer, tissues and disinfectants readily available and accessible in the workplace.

d) Reassign personnel who are at increased risk for disease complications (pregnancy, immunocompromised) to duties with lower risk of exposure non-client contact, e.g. non-client care duties or work from alternate locations/home.

e) Provide staff education – protecting themselves from disease at work and home.

f) Ensure that all staff are appropriately fit-tested and trained in the use of PPE before the pandemic.

g) Provide PPE – stockpile supplies of surgical masks, gloves, N95s, goggles/face-shields, etc.

h) Implement practices to decrease exposure within the workplace – limit face-to-face meetings, no hand-shaking, registration and triage staff wear masks and maintain 3 feet distance from unmasked,

limiting shared workstations or frequent disinfection between uses, regular disinfection of frequently touched surfaces (e.g. doorknobs, light switches, counter tops, etc.), not sharing pens/pencils, etc.

i) Implement use of physical modifications to environment that decrease the potential exposure to communicable disease, e.g. increase space between chairs in waiting rooms, use Plexiglas barriers where available, placement of fans to direct air flow, etc.

2) Plan to implement temporary modification of personnel policies in the event of a pandemic or catastrophic event:

a) Cancel all vacation/leave requests in the event of pandemic situation.

b) Suspend work-related out of town travel.

c) Implement emergency personnel policies that that address absences due to factors such as personal illness, family member illness, isolation, quarantines, etc. Temporarily modify sick leave policies during the pandemic to allow employees with flu-like illness to stay away from work until non-infectious (5-7 days) without disciplinary actions.

d) Prior to event - review insurance coverage for those with extended illnesses.

3) Develop plan for managing ill workers in the event of pandemic:

a) Employees exhibiting possible signs and symptoms of influenza shall call the designated centralized phone number to report their status and obtain a determination of whether they should work or not. Employees who develop fever and /or respiratory tract symptoms should not report for work – call in to report illness.

b) Employees who develop signs/symptoms of influenza (fever, respiratory symptoms) while at work will not remain at work – they shall be sent home.

c) The work station of an employee who becomes ill at work will be disinfected.

4) Develop plan for provisions that will be made for those staff who may have to stay on site for prolonged periods:

a) Housing/sleeping accommodations – stock cots and bedding (blankets, pillows) for use by staff. Establish sleeping quarters within the health department facility separate from work areas at the time of the event.

b) Food/water – arrange for food/water deliveries or pick-up with local vendors in cooperation with Emergency Management.

c) Personal hygiene facilities – use existing toilet and shower facilities within the building (currently 1 shower, will add a 2nd if feasible).

5) Consult with state on plans for minimum requirements for renewal of license for health care professionals – retirees, lapsed licenses/rapid credentialing of healthcare professionals.

E. Communication

1) Mechanisms for keeping employees informed have been identified. Frequent, honest and regular updates to provide the best available information to staff during a pandemic or catastrophic event are planned. Employees will be kept well-informed about the continuity of operations plan.

a) Employee hotlines*
b) Regular internal briefing sessions
c) Employee website

2) Mechanisms for informing clients and the public of changes in services and service delivery have been identified.

a) Public hotlines*
b) Public websites
c) Media releases
d) Posting of alternative days/hours of services on doors

3) Test as appropriate to ensure that all communication systems will work effectively.

*The hotline will be implemented using the CHCHD Hotline Plan.

V. Activating Continuity of Operations Plan

As a pandemic begins to present in the Hamilton County community (or the nature and extent of the disaster becomes apparent), supervisors/managers will report employee absenteeism and attendance on a daily basis, specifying the type and number of each job category of employees that are able to work. This information will be sent to the Epidemiology Department for surveillance purposes.

A. Operations

1) Assess operations and activate the continuity of operations plan based on an assessment of the following:

a) the ability to provide regular services with available human and material resources
b) increases and decreases in demand of existing services
c) the need for new or alternative services

2) Reallocate resources to provide retained services and operations.

Reassign staff, as needed, to fill pre-identified positions to perform retained services and operations and to provide new or alternative services as indicated.

3) Suspend non-emergency service/operations as human resources become limited and/or material resources must be rationed.

Waive or modify program policies and procedures where indicated to streamline normal processes or meet unique needs of event (e.g. suspend Motor/Voter for WIC clients, suspend QC activities except vaccine Storage requirements, re-supply Family Planning clients without typical exams, etc.)

4) Implement alternative service delivery mechanisms as needed to best utilize available staff:

a) Implement alternate service delivery locations, days and hours of operation

b) Utilize flex shifting/alternating clinic hours to more effectively utilize available staff (e.g. allows parents to alternate shifts between them in the case of school closures, etc.).

c) Implement alternate modes of service delivery as indicated.

B. Job Functions

1) Identify absent employees and their job functions. Track when ill employees will be expected to return to work.

2) Reassign employees to essential or prioritized job functions.

3) Utilize volunteers from Chattanooga-Hamilton County Health Department Volunteers and reassigned city and county employees as available and appropriate.

4) Provide just-in-time training as needed.

5) Provide pre-developed documentation of job functions, processes and tasks checklists for those essential services, operations and critical functions that will be provided so that reassigned staff can fulfill these duties (e.g. job action sheets).

6) Perform essential operations/critical functions as appropriate from off-site\home, or using alternative processes/technologies:

a) AS400 can be managed remotely

b) PTBMIS client data entry/ appointment scheduling can be done from remote/alternate locations

c) Electronic reimbursement billing to TennCare/insurance, etc. from remote/alternate locations.

d) Use manual, paper-based registration, encounters, appointment scheduling if needed

e) Phone triage/hotlines from home

C. Emergency Personnel Policies

1) Implement emergency personnel policies as outlined in the Pre-event Preparation section.

D. Communication

1) Keep employees informed with regular updates to staff on the pandemic/event status and the continuity of operations plan.

2) Inform suppliers and service providers of changes in supply/service needs.

3) Inform clients of any changes in services.

4) Activate and ensure that all communication systems are working effectively.

VI. Recovery State

Recovery from a pandemic or catastrophic event will begin when it is determined that adequate human and material resources exist to manage standard ongoing activities.

1) Assess the impact of the pandemic/catastrophic event on the health department's operations, personnel, clients and partners.

2) Manage the return to routine operations as able based on human and material resources.

3) Restore normal personnel policies when appropriate.

4) Conduct an internal evaluation of the continuity of operations plan and update plans as appropriate.

5) Notify employees about the change in pandemic/event status, return to usual operations and the restoration of usual policies.

6) Notify suppliers of return to usual operations.

7) Notify clients and general public of return to normal operations and services.

Incident Command System will be used under the direction of the demobilization unit leader.

Attachment A: Category A Services and Operations

I. Retained Public Services

"Retained" services that are provided even during extreme circumstances and are critical to accomplishing the mission of the Health Department.

Quick Guide to Health Department Services Retained During an Emergency

Program	Retained Services
1) Administrative Services	
a) Vital Records	- Issuance of death certificates; -Signing cremation, transit and disinterment/reinterment permits.
b) Linguistic Services	- Interpretation necessary to provide retained services
c) Medical Records	- Release of information necessary for provision of medical care
2) Case Management	
a) Adult and Renal Program	- Renal disease and adult home visits related to medication/insulin refill
b) Case Management	-Triage of CSS, HUGS, Lead prevention, and newborn screening referrals.
3) Clinical	
a) Clinical Nutrition	- Liquid supplement program for Ryan White clients
b) Dental	- Emergency dental care only as needed for the relief of pain
c) Epidemiology	- Disease outbreak investigation and surveillance; case management of infants born to Hepatitis B positive women
d) Homeless Health	- Urgent/emergent office visits and Rx refills
e) Immunizations	- Tetanus immunizations for injuries
f) Maternal and Child Health	- Rhogam injections, prenatal phone interviews as needed; visits on a case-by-case basis - WIC vouchers - Contraceptive refill, emergency contraceptive pills
g) Primary Care	- Urgent/emergent visits, medication refills
h) STD	- Disease treatment
i) TB	- Disease diagnosis and treatment
4) Community Health	- Public information, Staff information
5) Environmental	
a) Food and General Sanitation	- Food or environmentally-related illness outbreaks - Sanitation and food inspection of shelters
b) Rabies Prevention	- Animal bites rabies testing

DETAILED RETAINED PUBLIC SERVICES INFORMATION

1) Administrative Services

a) Vital Records

Suspend all services except those listed under Retained Services

i) Retained services:

- Issuance of death certificates
- Signing cremation permits
- Signing transit permits
- Signing disinterment/reinterment permits

Those requesting a birth certificate will be referred to the state registry office:

Address:
TN Vital Records
Central Services Building - 1st Floor
421 5th Avenue N
Nashville, TN 37243
Telephone: (615) 741-1763
Fax: (615) 741-9860

Must be a deputy registrar for the State of Tennessee to issue death certificates and sign permits and issuance must be onsite
Signing of permits could be done from home with telephone and fax machine

ii) Staff Required
3 fulltime employees, preferably deputy registrars

iii) Current Staff
Currently 3 employees are deputy registrars, soon to be 4 due to new hire. One additional employee is trained in issuance of birth certificates**.**

b) Linguistic Services

No suspension of services - will provide interpretive services with all available interpreters as needed to provide retained services. Language line will also be used if interpreters are not available.

i) Staff Required
All available interpreters would be used.

ii) Current Staff

- 1 fulltime interpreter
- 8 part time interpreters
- 2 interpreters on file (but not active at this time)
- 1 contract interpreter

c) Medical Records

Suspend all services except the release of information needed for medical care

i) Retained Services

Release of medical records as needed for the provision of medical care

ii) Staff Required

1 part-time employee 24 hours/week

iii) Current Staff

Currently 3 employees are trained

2) Clinical Services

a) Clinical Nutrition

Suspend routine nutritional assessment and patient education visits.

i) Retained Services

Only provide services directly related to provision of liquid supplements to Ryan White clients (assessment, education, supplying supplement). Assessment and education may be done by phone; supplements may be delivered or picked up.

ii) Staff Required

1 nutritionist

iii) Current staff

1 nutritionist – if that nutritionist not available, WIC nutritionists could perform this service

b) Dental

Suspend all elective services and the school based program.

i) Retained Services

Emergency dental care for the relief of pain and suffering.

ii) Staff Required

- 1 dentist
- 1 dental assistant
- 1 patient service representative

iii) Current Staff

- 6 dentists
- 6 dental assistants
- 1 hygienist
- 2 patient service representatives (1 part time)

c) Epidemiology

Anticipate an increase in epidemiology activities in the event of a highly communicable, deadly disease in the community. Modify disease investigation of Category 3 & 4 reportable diseases (evaluate response on a

case-by-case basis). Suspend NEDSS (National Electronic Disease Surveillance System) data entry, except in outbreak investigations.

i) Retained Services

- Disease outbreak surveillance and investigation of Category 1 reportable diseases – prioritized as indicated by nature of the event.
- Data entry to Outbreak Management System as directed by the state health department.
- Monitor for outbreaks of Category 2 reportable diseases.
- Investigate illness outbreaks related to restaurant complaints.
- Case management of infants born to Hepatitis B positive women.

ii) Staff Required

All current epidemiology staff plus 2 clerical staff to assist with data entry.

iii) Current Staff

- 3 epidemiology nurses (1 supervisor)
- 2 epidemiologists

d) Homeless Health Care Center

Suspend all services except urgent/emergent office visits and prescription refills; suspend all case management except as outlined below.

i) Retained Services

- Triage by phone when possible; triage on site to determine Disposition
- Only urgent and emergent office visits
- Prescription refills given out at window – supplies for 3-6 months
- TennCare prescriptions called in and delivered to patient address if known. If not known, delivered to clinic and given out at window.
- Separate waiting rooms and exam rooms for non-influenza and influenza related care
- Immunizations will be available

ii) Staff Required

- 2 nurses
- 1 medical provider
- 2 patient service representatives

iii) Retained Case Management Services

- Assistance to meet basic needs of the homeless client – food, clothing, shelter.
- Limited entitlement assistance – limited to assistance to secure food, clothing shelter, medical care, or medications.

- Limited outreach for street homeless to evaluate ill and food/clothing/shelter needs
- Limited mental health services to those most severe – 2 ½ days per week

iv) Staff Required
- 1 Case Manager
- 1 part-time Outreach Case manager
- 1 patient service representative
- 1 Mental Health Counselor (2 ½ days per week)

v) Current Staff
- 2 RNs (1 supervisor)
- 2 LPNs
- 3 clerical
- 5 physicians/nurse practioners (1fulltime, 4 part-time)
- 1 medical assistant
- 7 social services (1 supervisor/social workers)
- 3 kitchen staff
- 1 Medical case manager

e) Immunizations

Suspend all routine and overseas immunizations except:

i) Retained Services

Provide tetanus immunizations for injuries.

ii) Staff Required

This service will be provided by the same nursing staff that is assigned to Maternal-Child Health and Primary Care clinic sites.

f) Maternal-Child Health Services

Suspend all services except those listed under Retained Services

i) Retained Services
- Family Planning – contraceptive refills, emergency contraceptive pills.
- Prenatal -give RhoGam as scheduled.
- WIC - issue 3 months of vouchers for all WIC recertifications, vouchers only and infants of WIC moms (may consider distribution by mail) – or otherwise directed by the state; phone interviews for WIC infants to determine need and appropriateness of clinic visit.

ii) Staff Required

Number of each needed is dependent on how many sites are open.
- Nurse practitioner
- Nurses
- Patient Service Representatives
- WIC Clerks
- WIC Nutritionists

iii) Current Staff

- 5 clinic managers (nurses)
- 1 WIC manager
- 4 nurse clinicians/practitioners
- 18 nurses – RNs
- 2 nurses- LPNs
- 25 patient service representatives (4 part time)
- 1 registered dietitian/nutritionist
- 6 nutrition educators (1 part time)
- 7 WIC clerks
- clerical WIC staff (Field Representative, Vendor Coordinator, secretary)

g) Primary Care

Suspend primary care at Birchwood Health Center.

i) Retained Services

- Triage by phone
- Schedule only urgent and emergent office visits
- Prescription refills called in to local pharmacy – refills up to one year
- Immunizations available

ii) Staff Required

- 1 Part-time nurse
- 1 Part-time medical provider – nurse practitioner or physician each at OHC and SHC

iii) Current Staff

- 1 physician
- 1 Nurse Practitioner
- 2 LPNs
- 2 skimp patient service representatives

iv) Considerations

Separate waiting rooms and exam rooms for non-influenza and influenza related cases. Medical providers may have to rotate between all primary care sites to serve as back-up.

h) Sexually Transmitted Disease Services:

Suspend Immigration Physicals, STD investigations

i) Retained Services

- STD disease treatment

Novel approaches to patient evaluation will be instituted in order to limit the need for actual patient examinations while at the same time allowing for the treatment of potential cases of syphilis, gonorrhea and chlamydia.

ii) Staff Required
- 3 nurse specialists
- 3 patient service representative

iii) Current Staff 4 nurse specialists (1 supervisor)
- 3 patient service representatives
- 4 disease investigation specialists (1 supervisor)
- 1 LPN/lab x-ray technician

i) TB Clinic

Suspend targeted TB testing activities and universal directly observed therapy – do only on a case-by-case basis.

i) Retained Services
- Preventive therapy – pick-up medications only (or deliver if patient advised to stay home – issue more than a month at a time)
- TB treatment, suspect/contacts; labs as needed
- Special supplies/services – x-ray supplies (film has limited shelf life, will get reserve of processing chemicals, will get instructions in cleaning processor in case of emergency, working on vendor list, costs, alternative vendors).

ii) Staff Required
- 1 nurse (RN)
- 1 patient service representative
- 1 public health representative

iii) Current Staff
- 4 RNs (1 supervisor, 1 part time)
- 1 LPN
- 2 public health representatives (1 supervisor)
- 3 patient service representatives

3) Case Management

a) Adult & Renal Program

Suspend all services except those listed under Retained Services.

i) Retained Services
- Home visits for medication/insulin refills
- Home visits for other medical needs on case-by-case basis (not the provision of communicable disease related care).
- Clients will be prioritized on the AS400 – list will be updated each month with specific medicines, medical information/instructions listed

ii) Staff Required
- 1 or 2 nurses depending on the caseload

iii) Current Staff

- 2 nurses (RNs)

b) Case Management

Suspend all services except follow-up on referrals on a case-by-case basis. Suspend all TenderCare Outreach activities.

i) Retained Services

- CSS
- HUGS
- Newborn Screening
- Lead Prevention Program

Contacts will be made by phone or home visit as deemed necessary by the nature of the referral.

ii) Staff Required

- 2 social workers/counselors
- 1 secretary

iii) Current Staff

- 1 RN
- 2 secretaries
- 9 social workers/counselors (2 bilingual)
- 1 case manager
- 2 health educators
- 1 supervisor
- 1 program manager
- 1 Director
- 7 part-time outreach workers (2 bilingual)

4) Community Health

Suspend all services/operations except:

- **Public Information Services**

Public information officer has role in the event's public information activities.

- **Develop educational** brochures, flyers, posters – color printer, plotter

i) Staff Required

- Public Information Officer
- Health educators as needed to do community education/print materials related to event (will plan to do cross-training on use of printing equipment.)

ii) Current Staff

- Director
- 1 public information officer (PIO)
- 3 secretaries
- 3 program managers
- 5 health educators

- 1 prevention specialist
- 2 public health mentors
- 1 social worker.
- 1 health program coordinator

5) Environmental Services

Suspend all services except:

a) Animal Bite/Rabies Testing Program

i) Retained Services

- Write reports that are faxed daily from area hospital emergency rooms/other agencies (support staff)
- Make contact via telephone with the victims and owners of the animals, and other agencies involved (support staff)
- Collect information regarding the bite so the environmentalist can investigate effectively in the field. (support staff)
- Take notices out to owners/victims, view animals, evaluate situation for further action, give instructions to animal owners (testing, referring victims for further care, evaluating need for vaccine, isolating animal) (Environmentalist)
- Prepare specimens for transportation to state lab for rabies testing in exposure cases.

ii) Staff Required

- 2 Environmentalists
- 1 clerical/support staff

b) Sanitation and Food Inspection for Shelters and Food or Environmentally-Related Outbreaks

i) Retained Services

- Take phone reports of illnesses from public or medical facilities. (support staff)
- Do on-site inspection, specimen collection of food, evaluate situation and decide on appropriate action (2 Inspectors).

ii) Staff Required

- 2 inspectors
- 1 clerical/support staff

iii) Current Staff

- 14 Environmentalists
- 1 environmental technician
- 5 clerical/support staff (mosquito program)

[7-8 people have been cross trained – will continue to cross train remaining staff in Rabies Control and Food Outbreaks so all will be capable]

ADDITIONAL SERVICES for which there will likely be high demand:

- *Appointment scheduling for Category A services*
- *Phone Triage*
- *Hotline to relay info regarding services*

II. Retained Operations

These are those business operations that must be performed "behind the scenes" to support the provision of retained services/functions to the public.

Quick Guide to Health Department Operations Retained During an Emergency

1) Administrative Services	
a) Accounting	Employee payroll, accounts payable, purchasing, cash drawer reports, manual receipts, client data entry for reimbursement
b) Custodial Services	Cleaning of high-use areas; disinfection of areas where clients/staff become ill; increased frequency and extent of routine cleaning/disinfection.
c) Data Management	PC support, AS400 support
d) Emergency Preparedness	Activities related to the event
e) Maintenance	Facility operations (HVAC, electrical, water), ensure building is secure and operational; repairs as needed
f) Pharmacy	Procurement and distribution of medications/vaccines
g) Supply Room	Procurement and distribution of supplies
Clinical Services	
a) Quality control activities	Only those quality control activities directly related to the provision of retained services (e.g. refrigerator/freezer maintenance of vaccine, expiration of supplies, automatic defibrillator/emergency supplies checks

Additional operations:

- *Employee information line*
- *Employee report line*

DETAILED RETAINED OPERATIONS/FUNCTIONS INFORMATION

1) Administrative Services

a) Accounting

Suspend all activities except as outlined under retained operations

i) Retained Operations

- Accounts payable
- Employee payroll
- Client data entry for reimbursement (based on time period required for submission of claims – 90 days typically)
- Purchasing

ii) Staff Required
- 2 staff with skills outlined below

iii) Skills Required
- Experienced in accounting process
- proficient in Integrated Financial and Administrative Solutions system

**If access to IFAS from home was given to staff all operations could be managed from home (with telephone, PC and modem) with the exception of one part-time day per week spent onsite.*

iv) Current Staff
- 4 employees are trained

b) Custodial Services

No suspension of activities.

i) Retained operations

May be increased frequency and scope of cleaning/disinfecting schedule depending on the nature of the event) to reduce the risk of infection to staff and clients.

ii) Staff Required

Number of staff is dependent on how many sites are open. Will attempt to expand contracted custodial services, but may enlist assistance of all working staff to meet this need (individuals keep their own work site clean/disinfected as indicated).

iii) Current Staff
- 1 custodial supervisor
- custodial services provided via contracted service.

c) Data Management

Suspend software/hardware support activities except as needed to perform retained services

i) Retained operations
- Hardware and PC support
- Support for AS400 computer system

ii) Staff Required
- 2 data personnel (1 onsite)with the skills described below

iii) Skills Required
- Skilled PC technician for hardware support

- Experienced operator of AS400 system / phone support for questions

AS400 support and phone support could be provided from home with telephone, PC and modem

Possible AS400 functions – scheduling appointments, encounters, etc. - could be done by paper if necessary

iv) Current Staff

- 3.5 employees are skilled in PC support
- 2 employees are skilled in AS400

d) Emergency Preparedness

Suspend all routine block trainings, in-services

i) Retained Operations

Provide services/operations as indicated by the event.

ii) Staff Required

- All emergency preparedness staff

iii) Current Staff

- 1 coordinator (environmental scientist)
- 1 secretary
- 1 volunteer coordinator
- 1 hospital liaison (nurse)
- 1 nurse specialist trainer
- 1 environmental scientist

e) Maintenance

Suspend routine activities not needed to perform retained operations (e.g. yardwork, moving offices, miscellaneous minor jobs, preventative maintenance)

i) Retained operations

- Facility operations:
  - HVAC
  - Electrical
  - Water
- Ensure building is secure and above systems are operational
- Make repairs as needed

ii) Staff Required

- 3 fulltime employees

iii) Skills Required

- Ability to manage technical component of facility operations.
- Must be onsite

iv) Current Staff

- 3 employees are trained in maintenance (custodial supervisor is familiar with some components).

f) Pharmacy

No suspension of operations, probably be increased demands for these operations.

i) Retained Operations

- Procurement and distribution of medications and vaccines

Considerations:

- Consider distribution of all inventory out to clinics as adequate storage facilities allow (saves the expenditure of possible limited pharmacist time on multiple, repeated distributions).
- Appoint support staff to the pharmacist to handle those aspects of the operations that do not require a licensed pharmacist.
- Back-up: SE Region pharmacist, volunteer pharmacists.

ii) Staff Required

- 1 fulltime staff
- possibly 1 support staff

iii) Skills Required

- Licensed pharmacist experience with procurement process

iv) Current Staff

- 1 licensed pharmacist

g) Supply Room

No suspension of operations; will probably be increased demand for these operations.

i) Retained Operations

- Procurement and distribution of supplies

ii) Staff Required

- 1-2 fulltime employee in the supply room initially, possibly could operate with part-time hours after a period of time, e.g. deliveries could be prearranged to occur only between certain hours

iii) Skills Required

- Familiarity with supply room processes. Accounting staff are being cross-trained to work in Supply Room.

iv) Current Staff

- Currently 3 employees are trained to work in the supply room

Attachment B: Category B Services and Operations

I. Services to be Temporarily Suspended

Those services and operations that can be temporarily suspended during an emergency situation.

1) Administrative Services

- Vital Records Voluntary Acknowledgement of Paternity

2) Case Management

- Home visits – except those indicated under retained services
- TenderCare

3) Clinical Services

- Child Health – all services, including well child exams, newborn screening testing, head checks, routine immunizations
- Dental – all except emergency visits for relief of pain
- Employee physicals
- Epidemiology – routine NEDSS (National Electronic Disease Surveillance System) data entry. Suspend routine disease investigation of Category 3 & 4 reportable diseases (evaluate response on a case-by-case basis).
- Family Planning annual physicals, new admissions, walk-in pregnancy tests, TennCare presumptive eligibility, evaluation visits
- Immigration Physicals
- Overseas Vaccine program
- Prenatal – all admissions and revisits, all lab testing
- Routine adult and child immunizations
- STD Investigation
- STD/HIV/TB Outreach Testing
- Tennessee Breast and Cervical Screening Program exams and TennCare presumptives
- WIC – pregnant women visits, recertification visits
- Other Maternal-Child Health services - head checks, blood pressure checks, HIV testing, Tb Skin tests

4) Community Health

- Assessment and Planning
- Harriet Tubman
- Health Promotion activities

5) Environmental Services

- City/county complaint follow-ups
- Dog/cat vaccination program
- Groundwater
- Issuing permits
- Mosquito Control (depending on nature of crisis – potentially increased need)
- Routine environmental inspections
- West Nile Virus Testing

II. Operations to be Temporarily Suspended

- Patient billing
- All Block Trainings and staff in-services except those directly related to retained public health services/critical functions and pandemic/disaster public health responses.
- Staff meetings – only as required for continuity of operations and the event
- Committee/Council meetings not directly related to event response activities
- Print shop for routine forms –diverted for event related activities only or outsourced as appropriate. Suspend all routine operations - materials can be produced on a PC and duplicated using a copier, or printing can be outsourced.
- Quality control activities for any on-site testing/procedures that are not being provided during retained services mode.

Section 2. Surveillance

I. Purpose

To detect and track pandemic influenza activity among Hamilton County residents using multiple surveillance systems. Data are used by health officials to make resource allocation and intervention decisions.

II. Assumptions

Influenza disease is tracked each season using a variety of surveillance systems at the local, state and federal levels. An individual case of influenza is not a notifiable disease in state regulations, nor is it expected to become notifiable because of the resulting reporting burden with thousands of cases in a short period of time. Many years of traditional reporting systems have resulted in fairly reliable interpretation of trends in influenza-like-illness (ILI) activity associated with actual influenza disease in a community, despite the range of viruses capable of causing acute febrile respiratory illnesses during fall and winter months.

Additional surveillance systems may be instituted by the Centers for Disease Control and Prevention (CDC). Tennessee will participate in these systems as requested. As novel technology makes new surveillance strategies possible, those available for implementation by the Tennessee Department of Health and the Chattanooga-Hamilton County Health Department (CHCHD) will be added to future revisions of this plan.

Surveillance for influenza among animals, primarily domestic poultry, is the responsibility of the Tennessee Department of Agriculture. The role of the Tennessee Department of Health (TDH) is to work with the Department of Agriculture to address human health needs in the event of detection of an animal influenza virus with the potential to threaten human health.

III. Surveillance Systems

A. Sentinel Provider Network

Outpatient surveillance for influenza in Tennessee is presently conducted through the Sentinel Provider Network (SPN), according to CDC guidelines; this network is expected to be a primary source of outpatient influenza surveillance data during a pandemic. Fewer than the minimum numbers of expected specimens are submitted each year, though compliance has improved in recent seasons.

The TDH recruits SPN members through the 13 regional health departments. This local network of healthcare providers reports weekly the total number of patient visits and number of patients with ILI. Providers report to CDC via a password-protected Internet site. Data are available to state health department influenza surveillance coordinators on-line. Data reported on the Internet by providers are available in real time. SPN members also send specimens from a subset of patients with ILI to the State Laboratory for diagnostic testing at no cost. The TDH Laboratory sends five specimen collection kits to each provider and replenishes them as they are used.

B. SPN Expansion for Pandemic Preparedness

The Communicable and Environmental Disease Services Section (CEDS) of the TDH will collaborate with Regional Health Departments to expand the existing SPN to provide the primary mechanism for surveillance of outpatient ILI activity statewide, prior to and during a potential influenza pandemic. The network of volunteer clinicians will be increased to ensure at least one active provider per 100,000 persons, with appropriate geographic and demographic distribution to ensure that representative data are collected. This will involve the active participation of at least 60 providers state-wide. Additional volunteers will be encouraged.

Under enhanced surveillance, CHCHD will have at least three sentinel providers participating in the network.

Year-round, weekly internet reporting of ILI will be required of all participating providers. Providers not actively, consistently and reliably participating will be contacted in person by health department personnel, and will be replaced if they cannot provide adequate data. Providers will be assigned to submit to the TDH Laboratory at least one appropriate respiratory specimen per month, according to a protocol established by the CEDS Influenza Surveillance Coordinator. Specimen collection kits and shipping will be provided by the TDH Laboratory.

CHCHD epidemiology staff will be responsible for recruiting the appropriate sentinel providers within their region, according to guidance provided by the CEDS Influenza Surveillance Coordinator. The CEDS Influenza Surveillance Coordinator and other CEDS staff will coordinate the program centrally, and will assist with communication with the CDC.

Data from this sentinel surveillance system will be monitored regularly by CEDS staff. In the event of a pandemic or other substantive change, participating providers may be asked to change the frequency of reporting or specimen submission, using existing communication mechanisms with network physicians.

CHCHD epidemiology staff are responsible for all surveillance activities (Sections C-G).

C. Laboratory Surveillance

Samples are sent to the state laboratory for testing. The percentage of specimens testing positive for influenza at state and research hospital laboratories are reported weekly. Seasonal influenza peaks are typically associated with ~25% of submitted specimens testing positive.

D. Emergency Department Surveillance

The CHCHD receives data daily from all county emergency departments (EDs) and two EDs located outside of the county. The transmission of this data is automated and sent by FTP (file transfer protocol). There is a lag time as the data from one day are sent early the following morning. These ERs serve patients from Hamilton County, the surrounding southeast Tennessee counties, and north Georgia. Chief complaints are grouped into different syndrome categories which can be altered as

needed. An increase in respiratory complaints, particularly outside of the typical annual flu season, could provide an alert to county health officials.

E. School Absenteeism

The CHCHD receives daily teacher absentee counts for all Hamilton County public schools during the school year. The reported reasons for absences are listed along with the counts. Efforts are currently underway to obtain student absentee counts from a representative sample of schools.

F. Biosense

Biosense is a CDC project that collects data from Veteran's Administration hospitals and LabCorp. Biosense issues alerts for illnesses that are potential bioterrorism weapons.

G. National Retail Data Monitor

The National Retail Data Monitor collects data from major retailers on the sales of over-the-counter medications, grouping them into categories. Data is available free of charge to health officials. The CHCHD uses it in conjunction with other forms of data to determine if there is an event of public health significance in the community. More information can be found at http:rods.health.pitt.edu/NRDM.htm.

Section 3 Laboratory Policy and Procedures

I. Responsible Agency

The Tennessee Department of Health (TDH) Laboratory is the agency responsible for testing human specimens for pandemic influenza and influenza subtypes with pandemic potential (e.g., H5N1), as well as communicating with other sentinel laboratories licensed in Tennessee.

II. Purpose

The purpose of laboratory testing is to confirm the diagnosis of human influenza caused by novel influenza viruses or a pandemic influenza virus. Such testing will be used to confirm the presence of a novel influenza virus or pandemic virus in the community. During a pandemic, in the absence of serologic testing, testing of clinical specimens also will be done to confirm infection to: 1) allow persons to go back to work with pandemic influenza patients without risk of contracting the disease, and 2) exclude these persons from priority groups for the administration of vaccine.

III. Testing of Non-Human Specimens (WHO Phases 3-5)

Laboratory testing of birds or animals for influenza is the responsibility of the Department of Agriculture. Requests should be directed to the Office of the State Veterinarian at the Department of Agriculture.

IV. Laboratory Capacity

With current equipment, reagents, and personnel, the following numbers of specimens can be tested for influenza using real time reverse transcription polymerase chain reaction (real time RT-PCR) at the state laboratory:

A. TDH Laboratory Testing Capacity

The state public health laboratory in Nashville is capable of testing human specimens for novel influenza viruses using real time RT-PCR according to Laboratory Response Network (LRN) and the American Public Health Laboratory (APHL) protocols. Varying numbers of specimens may be tested, depending upon the number of targets against which each specimen is tested. Each round of testing takes approximately 3 hours. LRN protocols may also be used to test specimens at laboratories in Jackson, Knoxville and Memphis.

V. WHO Phases 3-5, Pandemic Alert (Pre-Pandemic)

A. Suspect Case Reporting

Individuals suspected of meeting the case definition published by the Department of Health (TDH) should be reported by telephone immediately to the Chattanooga-Hamilton County Health Department (CHCHD) Epidemiology Department at (423) 209-8190 or to the Tennessee Communicable and Environmental Disease Services Section (CEDS) at (615) 741-7247 (toll-free 1-800-404-3006). The report will be evaluated by the Health Officer and a CEDS physician who will provide guidance for testing. The state laboratory will follow the guidance of the CDC virology laboratory

and will either submit the specimen directly to the CDC or will conduct RT-PCR testing before submission.

B. Specimen Collection and Shipping

1) During the Pandemic Alert Period (WHO Phases 3-5), testing of a human specimen for a novel influenza virus must be authorized by the Chattanooga-Hamilton County Health Officer and CEDS physician.

2) Federal guidance provided by the Department of Health and Human Services (HHS) on specimen collection and shipping, current as of November 2005 is included as Attachment A. This information is subject to change and will be updated through communications from the state laboratory or CEDS.

3) Unless otherwise directed by the local Health Officer, all influenza specimens should be sent to the State Laboratory in Nashville for testing. Informed consent is not required.

Address:
Laboratory Services
Attn. Virology-Jerry Hindman
630 Hart Lane
Nashville, Tennessee 37216
Telephone: (615) 262-6300
Fax: (615) 262-6393
Jerry.hindman@state.tn.us

4) Confirmatory testing of all specimens positive for novel influenza virus will be conducted at CDC. During a pandemic, confirmatory testing will not be done at CDC for most specimens.

5) Only confirmed results will be considered valid and reported to the public.

6) Until and unless commercial tests are accepted as valid by CDC, any commercial laboratory results are considered preliminary until confirmed by CDC and should not be publicly announced as a positive result.

C. Specimen Testing

During this pre-pandemic period, human infections are caused by a novel influenza virus considered to have pandemic potential, but the virus lacks the ability to transmit easily from person to person.

Routine surveillance specimens submitted by the Sentinel Provider Network (SPN) will be processed by real time RT-PCR or culture. Real-time RT-PCR will determine if the specimen is influenza A or B, and specify if the type A virus has hemagglutinin (H) 1, H3, H5 or H7. If there is a risk of detecting a novel influenza virus in Tennessee, all specimens will be tested by real-time RT-PCR before culture to minimize the risk to laboratory personnel.

This risk will be communicated to the State laboratory by the State epidemiologist or designee and will be determined based upon the presence of a novel influenza virus

capable of causing human disease in the United States and outside a confined area of known risk (e.g., in migratory birds in Tennessee or the Southeastern US).

D. Results Reporting

Results of specimen testing will be mailed to providers and will be available to the Chattanooga-Hamilton County Health Department electronically (OMS). Confirmation will be required by CDC unless CDC announces a change to this policy.

VI. WHO Phase 6 (Pandemic Period)

A. Selecting Specimens for Testing

During a pandemic, once the virus is causing disease in Tennessee, testing of all specimens will cease. Specimens for testing at the State Laboratory or a branch of the State Laboratory will require the approval of the Health Officer, or their designee, which will be indicated by the presence of a checked field “approved for RT-PCR” and/or “approved for culture” in the Outbreak Management System (OMS) or other database used for laboratory results reporting to the health departments.

Justification for confirmatory testing for a clinical case would include:

1) characterization of a significant epidemiologic or clinical change,
2) confirmation of a pandemic virus in a new region of the state or
3) confirmation of disease in a health care provider or other person at high risk of exposure in order to exclude the need for future vaccination and possibly reduce the need for Personal Protective Equipment (PPE) (in the absence of an alternative serologic test).

B. Specimen Testing Technique

During a pandemic period, specimens provided by the SPN will be tested by real-time RT-PCR. In order to double the number of specimens tested in a single testing cycle, the real-time RT-PCR may be set up to distinguish only the pandemic H-type (e.g., H5), and generic influenza A or B. The current LRN protocol used in branch state laboratories tests only for H5.

C. Specimen Collection and Shipping

Same as for the Pandemic Alert Period. Any changes to this guidance will be disseminated to laboratories and clinicians by the State Laboratory and CEDS (see Attachment A).

D. Results Reporting

Results of specimen testing will be mailed to providers and will be available to regional health departments electronically. OMS or another database will be available at the state laboratory for data entry. Patients already approved for testing should have demographic data already present in OMS, thereby decreasing the work to accession specimens.

Under normal conditions, laboratory personnel responsible for running tests document and send result reports to clinicians. Once laboratory testing exceeds

normal capacity, the laboratory will require data entry support staff to permit laboratory personnel to focus on testing.

VII. Laboratory Occupational Health

All laboratory personnel in state, clinical, or research laboratories working with novel influenza viruses should be monitored in the event of developing any influenza like illness (ILI). Federal guidelines for directors of laboratories handling novel influenza viruses are available in the November 2005 HHS Pandemic Influenza Plan, Appendix 7, attached to this section. The State Laboratory will distribute this and any new information to laboratories licensed in Tennessee.

VIII. Laboratory Communications

The Tennessee State Laboratory is responsible for all communications with sentinel laboratories licensed in Tennessee. The State Laboratory will copy communications to all health officers and appropriate CEDS physicians. This includes communicating the following:

1) New testing protocols or other information
2) Occupational health surveillance recommendations or requirements
3) Laboratory safety guidelines

Information for clinicians will be disseminated by CHCHD and CEDS through channels established for clinician updates (See Section 8 [Communications]).

IX. Supplementary References

Supplemental references not included in this document can be found in Supplement 2: Laboratory Diagnostics, in the Department of Health and Human Services (HHS) Pandemic Influenza Preparedness Plan (www.pandemicflu.gov).

- Laboratory Bio-safety Guidelines for Handling and Processing Specimens or Isolates of Novel Influenza Strains
- Guidelines for Collecting and Shipping Specimens for Influenza Diagnostics
- Guidelines for Medical Surveillance of Laboratory Research Personnel Working with Novel Strains of Influenza
- Quick Reference Chart of Influenza Diagnostic Tests

Department of Health and Human Services (HHS) Pandemic Influenza Plan (available at www.pandemicflu.gov)

X. Local Laboratory Contact Information (Attachment A)

Attachment A. Local Hospital Laboratory Managers or Representative Contact List

CONFIDENTIAL INFORMATION

Section 4 Hospital Planning

I. Purpose

To provide guidance to hospitals on what they should be doing to plan for an influenza pandemic in conjunction with state pandemic planning efforts, and to explain the role of public health and the Regional Hospital Coordinator.

II. Introduction

An influenza pandemic will place a huge burden on the U.S. health care system. Published estimates based on extrapolation of the 1957 and 1968 pandemics suggest that there could be 839,000 to 9,625,000 hospitalizations, 18-42 million outpatient visits, and 20-47 million additional illnesses, depending on the attack rate of infection during the pandemic. The estimated medical burden of influenza in Tennessee is shown in Table 1. Estimates based on extrapolation from the more severe 1918 pandemic suggest that substantially more hospitalizations and deaths could occur. The demand for inpatient and intensive care unit (ICU) beds and assisted ventilation services could increase by more than 25 percent under the less severe scenario. Pre-pandemic planning by health care facilities is, therefore, essential to provide quality, uninterrupted care to ill persons and to prevent further spread of infection. Effective planning and implementation will depend on close collaboration among state and local health departments, community partners, and local and regional health care facilities. Planning and preparedness must take into account the likelihood that, in a severe pandemic, needs will exceed resources, and that medical care standards may need to be adjusted to save as many lives as possible.

Table 1. Medical Burden in Hamilton County (pop. 313,194)*

Characteristic	Moderate	Severe
Illness (30%)	93,958	93,958
Outpatient Care	46,979	46,979
Hospitalization	940	10,335
ICU Care	141	1,550
Mechanical Ventilation	70	775
Deaths (Case fatality rate)	187 (0.2%)	1,866 (2%)

* Population estimated from U.S. Census Bureau 2006 estimates.

III. Planning for Provision of Care in Hospitals

Tennessee health care facilities must be prepared for the rapid pace and dynamic characteristics of pandemic influenza. All hospitals should be equipped and ready to care for:

1) a limited number of patients infected with a pandemic influenza virus, or other novel strains of influenza, as part of normal operations; and,

2) a large number of patients in the event of escalating transmission of pandemic influenza.

Hospital response plans for pandemic influenza should:

1) Outline administrative measures for detecting the introduction of pandemic influenza, preventing its spread, and managing its impact on the facility and the staff.

2) Build on existing preparedness and response plans for bioterrorism events, SARS, and other infectious disease emergencies.

3) Incorporate planning suggestions from state and local health departments and other local and regional health care facilities and response partners.

4) Collaborate and coordinate planning with outpatient clinical providers to coordinate patient care.

5) Identify criteria and methods for measuring compliance with response measures (e.g., infection control practices, case reporting, patient placement, health care worker illness surveillance).

6) Review and update inventories of supplies that will be in high demand during an influenza pandemic.

7) Review procedures for the receipt, storage, and distribution of assets received from federal stockpiles.

8) Include mechanisms for periodic reviews and updates.

A. Role of the Regional Hospital Coordinator

The Regional Hospital Coordinator (RHC) is the regional liaison for the coordination of emergency response planning between hospitals and local/state public health. The RHC assist individual hospitals with disaster or other public health emergency planning using the Health Resources and Services Administration (HRSA) endowment contract as a guide. The RHC fosters multi-hospital region wide emergency response planning by facilitating the Hospitals and Medical Providers Subcommittee (HAMPS) whose membership includes representatives from: hospitals, physicians, non-acute care health care facilities, public health, Hamilton County Emergency Management, Hamilton County Emergency Medical Services, and Chattanooga Fire Department. In addition, the RHC works with hospitals and the Metropolitan Medical Response System (MMRS) in planning for the acquisition of additional medical resources needed to address hospital surge capacity.

During an emergency response, the RHC monitors hospital utilization of resources. Working with Hamilton County Emergency Operations Center and Tennessee Emergency Management Agency (TEMA) through the CHCHS Emergency Operations Center, the RHC locates additional available resources based on identified needs and monitors the movement of these resources.

1) Monitoring Resources

The RHC monitors hospital resources through the web-based Hospital Resource Tracking System (HRTS) which can be accessed at http://hrts.state.tn.us. In the event HRTS is not available, the RHC

uses the Hospital Resources database maintained in Microsoft Excel; a paper copy is also available.

The RHC monitors utilization of the State Pharmaceutical Cache, a resource of pharmaceuticals and medical supplies to be used for the treatment of hospital personnel during a disaster or other public health emergency. The RHC will collaborate with the State of Tennessee Department of Health SNS/CHEMPACK Coordinator through the CHCHD Emergency Operations Center to restock the cache if resources are available.

Medical and pharmaceutical supplies will be in short supply; some assets in the CHEMPACK may be required for patient care. The RHC will coordinate asset deployment with the cache storage site, the RHC at the Southeast Regional Office, and the SNS/CHEMPACK Coordinator at the State of Tennessee Department of Health through the CHCHD Emergency Operations Center. For monitoring and tracking CHEMPACK assets, refer to the Southeast Regional SNS/CHEMPACK Plan.

Antiviral medications will ultimately be placed in hospital pharmacies (hospitals providing in-patient services only). The RHC will monitor proper use and inventory of antiviral medications. The RHC will assist hospitals in their effort to replenish antivirals under the guidelines found in Section 6 Antiviral Drug Distribution and Use of this document.

2) Communication Liaison

The RHC is responsible for maintaining contact with each acute care hospital in Hamilton County throughout a pandemic influenza outbreak. The RHC has redundant communication tools available for use: landline, cell phone, fax machine, email, 800 MHz radio, and satellite phone, and the Tennessee Health Alert Network (T-HAN).

The RHC will submit request for local, state and federal resource support through the CHCHD Emergency Operations Center.

Each hospital has a primary and a secondary Pandemic Influenza Coordinator; a list of contact information is located at the end of Section 4. Contact information for hospital Pandemic Influenza Coordinators and Infection Control Practitioners is listed in T-HAN.

The RHC and CHCHD Epidemiology personnel will collaborate on communications to hospitals related to pandemic influenza.

3) Surveillance

The RHC assists CHCHD Epidemiology personnel in making contacts at the hospitals.

The HRTS contains a Pandemic Influence Surveillance module which may be activated at the state level. The RHC will train hospitals on the use of this module at a time which will be specified by the State of Tennessee Health Department.

The RHC will monitor the surveillance module to verify hospitals are inputting data as requested. The RHC submits a hospital surveillance compliance report to the State of Tennessee Department of Health SNS/CHEMPACK Coordinator each time the hospital requests additional antiviral medications (refer to Section 6 Antiviral Distribution and Use).

B. Planning Process

Groups and individuals involved in the hospital planning process should include:

1) An internal, multidisciplinary planning committee with responsibility for pandemic influenza preparedness and response. A pre-existing all-hazards preparedness team (e.g., established for bioterrorism response) might assume this role. Infection control input is vital. Consider representatives from major outpatient referral facilities, including Federally Funded Health Care Centers, to coordinate patient care and admission plans.

2) Hospital planning for pandemic influenza should consider concurrent public health, community, and health care planning efforts at the local, state, and regional levels. Some possible mechanisms for collaboration and coordination are to:

a) Designate the CHCHD Regional Hospital Coordinator as an ex-officio member of the planning committee at each acute care hospitals.

b) Obtain copies of pandemic influenza plans from other local or regional hospitals to use as models. These will be provided at the Tennessee Hospital Association (THA) website.

c) Work with other local hospitals, community organizations (e.g., social service groups), and the state or local health department to coordinate health care activities in the community and to define responsibilities for each entity during a pandemic. Acute care hospitals in Hamilton County collaborate on the standardization of health care activities during a pandemic and for other disasters or public health emergencies.

The Tennessee Department of Health (TDH) Communicable and Environmental Disease Services Section (CEDS) requests each hospital designate at least two persons to be the "**Pandemic Flu Coordinators**" (primary and back-up) at each hospital.

1) Objectives

a) To be the point person for communication of information from CEDS and CHCHD to hospitals (infection control and clinical management guidance)

b) To disseminate information to all who need to know in an efficient manner (including, but not limited to: staff involved in triage, emergency departments, ICU and critical care, radiology,

laboratory, as well as pulmonologists, respiratory therapists, infectious diseases physicians, infection control and hospital epidemiology)

c) To coordinate planning and response to pandemic flu at hospitals in close consultation with infection control personnel.

2) Notes

a) The Pandemic Flu Coordinator does not necessarily need to be an Infection Control Practitioner (ICP), but does need to have a good working relationship the ICP.

b) The Pandemic Flu Coordinator could be the communication officer under the HEICS (Hospital Emergency Incident Command System) and should be assigned to the communications section of the HEICS when activated.

c) Provide the Regional Hospital Coordinator (RHC) of the CHCHD with the name and contact information (phone, fax, e-mail and mailing address) for the designated Pandemic Flu coordinators in your hospital. (Attachment C). Pandemic Flu Coordinators should also sign up for that role under the Tennessee Health Alert Network (THAN). The Regional Hospital Coordinator can provide assistance to Pandemic Flu Coordinators in signing up for access to THAN.

C. Planning Elements

1) Hospital Surveillance and Reporting To Health Departments

During the pandemic period, health care providers and health care facilities will play an essential role in pandemic influenza surveillance. For detection of cases during the pandemic period, hospitals should have:

a) Mechanisms for monitoring department visits and hospital admissions and discharges of suspected or laboratory-confirmed pandemic influenza patients. This information will be needed to:

i) assist CHCHD personnel in monitoring the progress and impact of the pandemic

ii) assess bed capacity and staffing needs

iii) detect resurgence in pandemic influenza that might follow the first wave of cases.

b) Updated information on the types of data that should be reported to CHCHD (e.g., admissions; discharges/deaths; patient characteristics such as age, underlying disease, and secondary complications; and, illnesses in health care personnel) and plans for how these data will be collected during a pandemic.

c) Criteria for distinguishing novel/pandemic influenza from other respiratory diseases. The TDH will provide some training tools to the Pandemic Flu Coordinators

2) Hospital Communications

Each hospital should work with public health officials, other government officials, neighboring health care facilities, the lay public, and the press to ensure rapid and ongoing information-sharing during an influenza pandemic.

a) External Communications

i) Assign responsibility for external communication about pandemic influenza; identify a person responsible for updating public health reporting, a clinical spokesperson, and a media spokesperson. The Pandemic Flu Coordinator will be the point person with whom CEDS, CHCHD, and the Regional Hospital Coordinator will communicate clinical and infection control guidance.

ii) In collaboration with CEDS and the CHCHD, determine the methods, frequency, and scope of external communications.

- Communication from CEDS to the Pandemic Flu Coordinators will generally be via email.
- Communications from CHCHD may be via blast fax, email, telephone, or in person.

iii) Determine who (e.g., clinician or infection control professional) will contact CHCHD about suspected novel/pandemic influenza cases.

iv) Open communication within and between healthcare facilities will be critical to ensure that proper infection control precautions are taken to prevent inadvertent unprotected exposure to a case patient.

v) When patients are transferred, appropriate personnel at other healthcare institutions and EMS must be notified if patients may have been exposed to novel/pandemic influenza.

vi) If nosocomial transmission of novel/pandemic influenza is suspected, contact the CHCHD immediately (24/7). Do not wait to complete the internal investigation before notifying the health department.

vii) Designate who will manage all press releases and communications with the general public, news media, and employees. Provide CHCHD with the designee's contact information (see Section 8 Public Health

Communications). This designee should collaborate with the CHCHD to coordinate communications.

viii) Determine how public inquiries will be handled (e.g., refer callers to CHCHD, provide technical support for handling calls).

ix) Identify the types of information the hospital can provide and the types of inquiries that will be referred to CHCHD.

b) Internal Communications

i) Determine how to keep administrators, personnel (including infection control, intake, and triage staff), patients, and visitors informed of the ongoing impact of an influenza pandemic on the facility and on the community. The pandemic flu coordinator will be the point-person contacted by CEDS, CHCHD, or the Regional Hospital Coordinator.

ii) Ensure that the most current information from the health department (e.g., details of times and places where novel/pandemic influenza cases exposures may have occurred) can be widely disseminated to all staff in a timely manner. This is one of the functions of the Pandemic Influenza Coordinator.

iii) Systems should be in place to notify staff of potential exposure. Staff may work at multiple institutions, and unrecognized exposure and infection could put other staff and patients at risk.

iv) Ensure access to contact information (including after hours) for all staff and students. The objective is to identify contacts of potential novel/pandemic influenza virus cases before contacts become symptomatic.

- Include all contract staff (e.g., laboratory, dialysis), attending physicians, vendors, students and nursing agencies
- Time is of the essence (incubation period may be as short as 24 hours).
- Contact tracing will only be implemented during Pandemic Alert Phases 3-5 and early Phase 6 while there is no evidence of community-transmission spread with a loss of epidemiologic links among cases) in the United States. The Pandemic Flu Coordinator should contact CHCHD to assist in the identification and monitoring of contacts of potential cases infected with a novel influenza virus.

3) Education and Training

Staff Education

a) General topics for inpatient and outpatient staff education should include:

i) prevention and control of influenza

ii) implications of pandemic influenza

iii) role of antiviral drugs in preventing disease and reducing rates of severe influenza and its complications; (see Section 6, Antivirals)

iv) infection control strategies for the control of influenza, including respiratory hygiene/cough etiquette, hand hygiene, standard precautions, droplet precautions, and, as appropriate, airborne precautions

b) Hospital-specific topics for education of staff and affiliated community providers should include:

i) policies and procedures for the care of pandemic influenza patients, including how and where pandemic influenza patients will be cohorted according to pandemic staffing contingency plans.

ii) policies for restricting visitors and mechanisms for enforcing these policies

iii) measures to protect family and other contacts from secondary occupational exposure (see Section 7, Supplement 2, Pre-Pandemic Case Management)

c) Train intake and triage staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission.

d) CEDS will distribute resource materials that can be used for staff education via the Pandemic Flu Coordinators. Hospitals need to designate who will adapt these resource materials to their local needs and who will provide the training.

e) Supply social workers, psychologists, psychiatrists, and nurses with guidance for providing psychological support to patients and hospital personnel during an influenza pandemic.

Education of Patients, Family Members, and Visitors

a) Patients and others should know what they can do to prevent disease transmission in the hospital, as well as at home and in community settings.

b) Identify language-specific and reading-level appropriate materials for educating patients, family members, and hospital visitors during an influenza pandemic. CEDS will assist by disseminating materials to Pandemic Flu Coordinators.

Hospitals need to designate who will adapt these resource materials to their local needs.

c) Develop a plan for distributing information to all persons who enter the hospital. Identify staff to answer questions about procedures for preventing influenza transmission.

4) Triage, Clinical Evaluation, and Admission Procedures

a) During the peak of a pandemic, hospital emergency departments and outpatient offices are likely to be overwhelmed with patients seeking care. Therefore, triage should be conducted to:

- identify persons who might have pandemic influenza
- separate them from others to reduce the risk of disease transmission
- identify the type of care they require (i.e., home care or hospitalization).

b) Develop a strategy for triage, diagnosis, and isolation of possible novel/pandemic influenza patients.

c) Review procedures for the clinical evaluation of patients in the emergency department and in outpatient medical offices to facilitate efficient and appropriate disposition of patients.

d) The TDH will alert the Pandemic Flu Coordinator when active screening (direct questioning of all persons entering the hospital for symptoms and signs of pandemic influenza) should be implemented. This is expected to be at the start of the pandemic (WHO Phase 6). In addition to visual alerts, potential screening measures might include priority triage of persons with respiratory symptoms.

5) Facility Access

a) Hospitals should determine in advance the criteria and procedures they will use to limit access to the facility if pandemic influenza spreads through the community.

b) Define “essential” and “nonessential” visitors with regard to the hospital and the population served. Develop protocols for limiting nonessential visitors. Consider limiting all hospital visitors (except parent/guardian of small children).

c) Develop criteria for temporarily closing the hospital to new admissions and transfers. The criteria should consider staffing ratios, isolation capacity, and risks to non-influenza patients.

d) Determine the role of hospital security services in enforcing access controls.

6) Occupational Health

The ability to deliver quality health care is dependent on adequate staffing and the optimum health and welfare of staff. During a pandemic, the health care workforce will be stressed physically and psychologically. Like others in the community, many health care workers will become ill.

a) Managing Ill Workers:

i) Establish a plan for detecting signs and symptoms of influenza in health care personnel before they report for duty.

ii) Develop policies for managing health care workers with respiratory symptoms.

b) Time-off Policies:

i) Ensure that time-off policies and procedures can be adjusted in light of staffing needs

ii) Reassignment of High-Risk Personnel

iii) Establish a plan to protect personnel at high risk for complications of influenza (e.g., pregnant women, immunocompromised persons) by reassigning them to low-risk duties

c) Psychosocial Health Services

i) Identify mental health and faith-based resources (e.g., Employee Assistance Program, Critical Incident Stress Management, Psychiatry, Chaplain services) for counseling of health care personnel during a pandemic. Consider CHCHD's resource list (Section 9).

ii) Determine a strategy for housing and feeding health care personnel who might be needed on-site for prolonged periods.

iii) Develop a strategy for accommodating and supporting staff that have child or elder care responsibilities.

d) Influenza Vaccination and Use of Antiviral Drugs

i) Ensure that a system is in place for documenting influenza vaccination of health care personnel.

ii) Establish a strategy for rapidly (preferably within 12 hours of onset of symptoms) providing antiviral treatment to health care personnel as recommended by the TDH. For standard human influenza (H3N2), oseltamivir is most effective if started within 12 hours of onset of symptoms, although some benefit is derived if

taken up to 48 hours after onset of symptoms. For pandemic influenza, hospitals may use HRSA funds to purchase antiviral drugs for symptomatic health care personnel (see Section 6, Antiviral Distribution and Use).

7) Surge Capacity

Health care facilities should plan ahead to address emergency staffing needs and increased demand for isolation wards, ICUs, assisted ventilation services, and consumable and durable medical supplies.

a) Staffing Policies

i) Assign responsibility for the assessment and coordination of staffing during an emergency.

ii) Determine how the hospital will meet staffing needs as the number of patients with pandemic influenza increases and/or health care and support personnel become ill or remain at home to care for ill family members.

iii) Consult with the state health department on plans for rapidly credentialing health care professionals during a pandemic.

iv) Explore opportunities for recruiting health care personnel from other health care settings (e.g., medical offices and day-surgery centers); consider developing mutual aid agreements. Consult CHCHD about the existing MRC volunteer registry.

v) Following appropriate infection control and personal protection equipment training and fit-testing, all healthcare workers are expected to conduct their normal level of job activities in order to provide care for patients with known or suspected novel/pandemic influenza.

vi) Existing staffing shortages may be amplified by illness among staff members, fear and concern about the disease, and isolation and quarantine of exposed staff or ill/exposed family members. Staffing shortages are likely to escalate as the pandemic progresses. The strain involved in novel/pandemic influenza patient care and prolonged use of personal respiratory protection may intensify staffing challenges. As the number of patients increase and/or staff becomes ill, a determination will need to be made as to how staffing needs will be met. The staffing needs for highly communicable respiratory disease patient management may be greater (e.g., twice the normal staffing ratio) than that normally provided for other non-ICU and ICU patients to allow PPE-free time. Use of

alternative staffing resources (e.g., retired healthcare workers, volunteers, contract workers, students) may be needed but will require training and support (including malpractice insurance, occupational health services) during the outbreak response. Consider developing just-in-time training modules prior to an outbreak.

vii) During the influenza pandemic, all infection control professionals will be needed to formally monitor and reinforce compliance with PPE measures and policies.

viii) If quarantine is used as an exposure management tool, some healthcare workers may be placed on 'home/work restrictions' to ensure sufficient staffing levels. Healthcare workers on home/work restrictions should travel only between home and the healthcare facility for the duration of the restriction.

ix) Health care workers should have access to mental health professionals to help them cope with the emotional strain of managing a highly communicable respiratory disease outbreak (e.g., Employee Assistance Program, Critical Incident Stress Management, Psychiatry, Chaplain services).

b) Bed Capacity

i) Review and revise admissions criteria for times when bed capacity is limited.

ii) Develop policies and procedures for expediting the discharge of patients who do not require ongoing inpatient care.

iii) Develop criteria for temporarily canceling elective surgical procedures and determining what and where emergency procedures will be done during a pandemic.

iv) Discuss with state and CHCHD how bed availability, including available ICU beds and ventilators, will be tracked during a pandemic. (Attachment D) It is anticipated that the Hospital Resource Tracking System (HRTS), once operational, will be used. The Regional Hospital Coordinator can provide training on the use of HRTS.

v) Discuss with health care regulators whether, how, and when "Altered Standards of Care in Mass Casualty Events" http://www.ahrq.gov/research/altstand/index.html will be invoked and applied to pandemic influenza.

vi) Develop Mutual Aid Agreements (MAAs) or Memoranda of Understanding/Agreement (MOU/As) with other local facilities (e.g., rehabilitation, long-term care facilities) who can accept non-influenza patients who do not need critical care.

vii) Identify areas of the facility that could be vacated for use in cohorting influenza patients.

c) Consumable and Durable Supplies

Develop a surge capacity plan for personal protective equipment (PPE) Documentation of all levels of PPE should be recorded in HRTS once this system is implemented.

i) Consider creating a stockpile of surgical masks (with or without face-shields) for protection of healthcare workers, visitors and patients. If masks without face-shields are purchased, it will be important to ensure that goggles or separate face-shields are supplied, and that procedures are in place for the safe and effective cleaning of these devices.

Pros: Surgical masks provide protection from droplet spread; most seasonal influenza is believed to be spread via droplets rather than the airborne route. Surgical masks may be in short supply. Surgical masks take up less storage room than N95 respirators, are far less expensive, and may benefit more workers, if N95 respirators are not able to be reused. Surgical masks have a long shelf life. Some distributors may be willing to store the purchased surgical masks at no charge.

Cons: Masks help prevent infection with influenza, but do not benefit the sick. On occasions, influenza may be airborne, and thus the surgical mask may not be as effective as a N95 respirator. It is highly unlikely that masks will be able to be re-used.

ii) Consider creating a stockpile of N95 respirators (or PAPRs) for protection of healthcare workers.

Pros: Infection control precautions for airborne infectious diseases such as tuberculosis, measles, and chickenpox, require the use of N95 respirators; however, these may be in short supply. N95 respirators may confer additional protection against influenza when, under certain circumstances, (e.g., during aerosol generating procedures) influenza is airborne, rather than spread via droplets. N95 respirators have a long shelf life. Some distributors may be willing to store the purchased N95 respirators at no charge. It may be

possible to reuse N95 respirators; this is currently being examined.

Cons: N95 respirators are much more expensive than surgical masks, take up much more storage room and may not confer additional protection against influenza relative to surgical masks in patient encounters where aerosols are not generated.

iii) Consider creating a stockpile of goggles/face-shields

Pros: Goggles/face-shields are essential to prevent inoculation of the mucosal surfaces of the eye with infectious agents. They should be worn when sprays or splatters of infectious material are likely. In addition, they provide a barrier to prevent self-inoculation with hands that may be contaminated

Cons: Need to have a procedure in place to process/clean these goggles/face-shields before they are reused.

iv) Consider creating stockpile of gloves (sterile and non-sterile) for protection of healthcare workers.

Pros: Gloves are an essential part of standard and contact infection control precautions, protecting healthcare workers from blood borne pathogens and other microbial pathogens. Gloves may be in short supply if trade/distribution routes are interrupted.

Cons: Gloves have a limited shelf life; gloves may degrade over time, especially if exposed to high temperatures.

Consider creating stockpile of gowns for protection of healthcare workers

Pros: Gowns are an essential part of contact infection control precautions, protecting healthcare workers from blood borne pathogens and other microbial pathogens. Gowns may be in short supply if trade/distribution routes are interrupted.

Cons: Gowns take up a considerable amount of storage space. Most patient interactions do not require use of a gown.

Anticipate needs for antibiotics to treat bacterial complications of influenza, and determine how supplies can be maintained during a pandemic.

Establish contingency plans for situations in which primary sources of medical supplies become limited.

8) Mortuary Issues

To prepare for the possibility of mass fatalities during a pandemic, hospitals should:

a) Discuss mass fatality plans with local and state health officials. The state's medical examiner has been tasked by the TEMA to develop a detailed mass casualty response plan.

b) Work with officials to identify temporary morgue sites; document hospital morgue capacity in HRTS once this system is implemented.

c) Determine the need for supplies (e.g., body bags) to handle an increased number of deceased.

d) Contact precautions should be used when handling the bodies of expired patients who had signs or symptoms compatible with novel/pandemic influenza.

e) Autopsies of expired patients who had signs or symptoms compatible with novel/pandemic influenza should be done with airborne and contact precautions. Infection control and hospital epidemiology should be notified.

9) Security

a) Additional security may be required, given the increased demand for services, long waits, and because of triage or treatment decisions that patients or families may disagree with. In addition, hospitals have healthcare staff and other resources that may be scarce (e.g., antivirals, personal protective equipment, medications).

b) Security of antivirals will be taken into consideration in determining the allocation of antivirals. (See Section 6 Antiviral Medications)

10) Vaccine Recipient Prioritization

d) Please refer to CHCHD Pandemic Influenza Plan (Section 5 Vaccines).

e) Hospitals are requested to develop a priority list (with named individuals) for recipients of influenza vaccine. This list will be provided to the health department in the event of a pandemic, and only persons on that list will be able to obtain the vaccine. The chief medical officer or similarly senior physician should be the responsible party for this prioritization.

An excellent resource for decision-making on prioritization (based on individual health care worker risk) is provided in the following SHEA position paper, published in ICHE, November 2005: Talbot TR, Bradley SE, Cosgrove SE, Ruef C, Siegel JD, Weber DJ. Influenza vaccination of healthcare workers and vaccine allocation for healthcare workers during vaccine shortages. Infect. Control Hosp. Epidemiol 2005; 26:882-90. The article is available at:

http://www.shea- online.org/Assets/files/HCW_Flu_Position_Paper_FINAL_9-28.pdf; http//;www.journals.uchicago.edu/ICHE/journal/issues/v26n11/11650/11650.web.pdf

f) Hospitals are expected to consider all persons (including non-employees such as attending physicians and agency staff) when developing vaccine recipient lists. A comprehensive list of staff to be considered is found on page 3 of the CDC Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Healthcare Settings (2005) available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm

D) Providing Basic Needs and Home Healthcare to Home-Bound.

This will be facilitated through the Emergency Operations Center and ESF 6.

E) Communications with Hospitals and Outpatient Acute Care Facilities in the Region.

CHCHD will communicate with hospitals and outpatient acute care facilities through blast fax, email, and phone. (see Section 8).

F) Role of FQHCs and Rural Health Centers

FQHCs will be part of the network that is coordinated through the EOC for primary care.

Attachment A. Hospital Preparedness Checklist

(Appendix 2, Supplement 3, HHS Plan, November 2005)

Preparedness Subject

1. Structure for planning and decision making

- An internal, multidisciplinary planning committee for influenza preparedness has been created.
- Person named as influenza preparedness coordinator: _____
- Members of the planning committee include the following hospital staff members:

  Administration _____

  Legal counsel _____

  Infection control _____

  Hospital disaster coordinator _____

  Risk management _____

  Facility engineering _____

  Nursing administration _____

  Medical staff _____

  Intensive care _____

  Emergency Department _____

  Laboratory services _____

  Respiratory therapy _____

  Psychiatry _____

  Environmental services _____

  Public relations _____

  Security _____

  Materials management _____

  Staff development _____

  Occupational health _____

  Diagnostic imaging _____

  Pharmacy _____

  Information technology _____

  Other members _____

  Other members _____

- State or local health department person to serve as committee liaison: _____

Attachment A. Hospital Preparedness Checklist (Cont'd)

- Linkage with local or regional emergency preparedness groups has been established by:

  (Planning organization) _____

2. Development of a written pandemic influenza plan

- Written plan has been completed or is in progress that includes the elements listed below in #3
- The plan specifies the circumstances under which the plan will be activated.
- The plan describes the organization structure that will be used to operationalize the plan.
- Responsibilities of key personnel related to executing the plan have been described.
- A simulation exercise has been developed to test the effectiveness of the plan.
- A simulation exercise has been performed. (Date performed _____)

3. Elements of an influenza pandemic plan

- A **surveillance plan** has been developed.
  --Syndromic surveillance has been established in the emergency room.

  --Criteria for distinguishing pandemic influenza is part of the syndromic surveillance plan

  --Responsibility has been assigned for reviewing global, national, regional, and local influenza activity trends and informing the pandemic influenza coordinator of evidence of an emerging problem. (Name_____)

  --Thresholds for heightened local surveillance for pandemic influenza have been established.

  --A system has been created for internal review of pandemic influenza activity in patients presenting to the emergency department.

  --A system for monitoring for nosocomial transmission of pandemic has been implemented and tested by monitoring for non-pandemic influenza.

- A **communication plan** has been developed.
  --Responsibility for external communication has been assigned.

  --Person responsible for updating public health reporting: _____

  --Media spokesperson for the facility _____

  --Key points of contact outside the facility have been identified.
  State health department contact _____

  Local health department contact _____

  Newspaper contact(s) _____

  Radio contact(s) _____

  Public official(s) _____

  --A list of other healthcare facilities with which it will be necessary to maintain communication has been established.

Attachment A. Hospital Preparedness Checklist (Cont'd)

--A meeting with local healthcare facilities has been held to discuss a communication strategy.

--A plan for updating key facility personnel on a daily basis has been established.

--The person(s) responsible for providing these updates are: _____

--A system to track pandemic influenza admissions and discharges has been developed and tested by monitoring non-pandemic influenza admissions and discharges in the community.

--A strategy for regularly updating clinical, ED, and outpatient staff on the status of pandemic influenza, once detected, has been established (Responsible person: _____)

--A plan for informing patients and visitors about the level of pandemic influenza activity has been established.

- An **education and training plan** on pandemic influenza has been developed.

--Language and reading level-appropriate materials for educating all personnel about pandemic influenza and the facility's pandemic influenza plan, have been identified.

--Current and potential sites for long-distance and local education of clinicians on pandemic influenza have been identified.

--Means for accessing state and federal web-based influenza training programs have been identified.

--A system for tracking which personnel have completed pandemic influenza training is in place.

--A plan is in place for rapidly training non-facility staff brought in to provide patient care when the hospital reaches surge capacity.

--A method for prioritizing healthcare personnel for receipt of vaccine or antiviral prophylaxis based on level of patient contact and personal risk for influenza complications has been established.

--A system for detecting symptomatic personnel before they report for duty has been developed.

--This system has been tested during a non-pandemic influenza period.

--A method for furloughing or altering the work locations of personnel who are at high risk for influenza complications (e.g. pregnant women, immunocompromised healthcare workers) has been developed.

--Mental health and faith-based resources will provide counseling to personnel during a pandemic have been identified.

--A strategy for housing healthcare personnel who may be needed on-site for prolonged periods of time is in place.

--A strategy for accommodating and supporting personnel who have child or elder care responsibilities have been developed.

Attachment A. Hospital Preparedness Checklist (Cont'd)

--A policy for managing healthcare personnel with symptoms of or documented pandemic influenza has been established. The policy considers:
When personnel may return to work after having pandemic influenza
When personnel who are symptomatic but well enough to work, will be permitted to

- A **vaccine and antiviral use plan** have been developed.

--A contact for obtaining influenza vaccine has been identified.

(Name)_____

--A contact for obtaining antiviral prophylaxis has been identified.

(Name)_____

--A priority list (based on HHS guidance for use of vaccines and antivirals in a pandemic when in short supply) and estimated number of patients and healthcare personnel who would be targeted for influenza vaccination or antiviral prophylaxis has been developed.

Number of first priority personnel _____

Number of second priority personnel _____

Number of remaining personnel_____

Number of first priority patients_____

Number of second priority patients_____

--A system for rapidly distributing vaccine and antivirals to patients has been developed.

--Issues related to surge capacity have been addressed.

--A plan is in place to address unmet staffing needs in the hospital.

--The minimum number and categories of personnel needed to care for a group of patients with pandemic influenza has been determined.

--Responsibility for assessing day-to-day clinical staffing needs during influenza has been assigned. Persons responsible are: (Names and/or titles)

_____

_____

--Legal counsel has reviewed emergency laws for using healthcare personnel with out-of-state licenses.

--Legal counsel has made sure that any insurance and other liability concerns have been addressed

--Criteria for declaring a "staffing crisis" that would enable the use of emergency staffing alternatives have been defined.

--The plan includes linking to local and regional planning and response groups to collaborate on addressing widespread healthcare staffing shortages during a crisis.

Attachment A. Hospital Preparedness Checklist (Cont'd)

--A priority list for reassignment and recruitment of personnel has been developed.

--A method for rapidly credentialing newly recruited personnel has been developed

--Mutual AID Agreements (MAAs) and Memoranda of Understanding/Agreement (MOU/As) have been signed with other facilities that have agreed to share their staff, as needed

--Strategies to **increase bed capacity** have been identified.

--A threshold has been established for canceling elective admissions and surgeries

--MOAs have been signed with facilities that would accept non-influenza patients in order to free-up bed space.

--Areas of the facility that could be utilized for expanded bed space have been identified.

--The estimated normal patient capacity for this facility is: _____ while the maximum surge capacity is:_____.

--Plans for expanded bed capacity have been discussed with local and regional planning groups.

--Anticipated **durable and consumable resource** needs have been determined.

--A primary plan and contingency plan to address supply shortages has been developed.

--Plans for obtaining limited resources have been discussed with local and regional planning and response groups.

--A strategy for handling increased numbers of deceased persons has been developed.

--Plans for expanding morgue capacity have been discussed with local and regional planning groups.

--Local morticians have been involved in planning discussions

--Mortality estimates have been used to estimate the number of body bags and shrouds.

--Supply sources for postmortem materials have been identified.

Attachment B. Hospital Planning Resources

Some of these resources were provided as an appendix to the recommendations provided by the Maryland Hospital Association

I. Pandemic Influenza Plans

A. Currently Available State Plans

may be found on the following Council of State and Territorial Epidemiologists website: http://www.cste.org/specialprojects/Influenzaplans/StateMap.asp

B. Tennessee's Pandemic Influenza Plan

May be found on the following Tennessee Department of Health website: http://www2.state.tn.us/health/CEDS/pandemic.htm

C. Currently available National Plans

may be found on the following WHO website:
http://www.who.int/csr/disease/influenza/nationalpandemic/en/index.html

D. WHO Global Influenza Preparedness Plan

http://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5/en/index.html Document defines the role of WHO and recommendations for national measures before and during pandemics.

E. WHO Checklist for Influenza Pandemic Preparedness Planning

plans will be made available on www.tha.com

II. Tools

A. FluAid

http://www.cdc.gov/flu/pandemic/impactestimate.htm
FluAid 2.0 provides estimates of the total deaths, hospitalizations, and outpatient visits that might occur during an influenza pandemic.

B. FluSurge

http://www.cdc.gov/flu/pandemic/impactestimate.htm
This specialized spreadsheet-based software estimates the potential surge in demand for hospital-based health care during a pandemic. For each week of a pandemic, FluSurge 2.0 calculates the potential demand for hospital beds, intensive care unit beds, and mechanical ventilators. Demand for resources is compared with actual capacity. FluSurge 2.0 is a companion to the previously released FluAid 2.0.

III. CDC: Engineering/Environmental Control

Information on environmental control measures/Engineering controls such as negative pressure rooms or airborne infection isolation (AII) rooms: CDC Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Healthcare Settings (2005) at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm and

CDC/HICPAC Guidelines for Environmental Infection Control in Healthcare Facilities (2003) http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm

IV. CDC: Infection Control Guidelines

http://www.cdc.gov/ncidod/dhqp/guidelines.html

V. CDC: Information on avian influenza

http://www.cdc.gov/flu/avian/index.htm

VI. Prioritization for Influenza Vaccination of Healthcare Workers

A. SHEA Position Paper

An excellent resource for decision-making on prioritization (based on individual health care worker risk) is provided in the following SHEA position paper, published in ICHE, November 2005: Talbot TR, Bradley SE, Cosgrove SE, Ruef C, Siegel JD, Weber DJ. Influenza vaccination of healthcare workers and vaccine allocation for healthcare workers during vaccine shortages. Infect. Control Hosp. Epidemiol 2005; 26:882-90. The article is available at http://www.shea-online.org/Assets/files/HCW_Flu_Position_Paper_FINAL_9-28.pdf and http://www.journals.uchicago.edu/ICHE/journal/issues/v26n11/11650/11650.web.pdf

B. CDC

A comprehensive list of staff to be considered for vaccination is found on page 3 of the CDC Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Healthcare Settings (2005) available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm

VIII. AHRQ Health Emergency Assistance Line and Triage Hub (HEALTH) Model

The model is designed to minimize surges in patient demand on the health care delivery system during a bioterrorist event or other public health emergency.

A. Full Report

Health Emergency Assistance Line and Triage Hub (HEALTH) Model (AHRQ Publication No. 05-0040) (http://www.ahrq.gov/research/health/health.pdf This report helps planners determine the requirements, specifications, and resources needed for developing an emergency contact center such as the HEALTH model.

B. Contact Center Assessment Tool Set

(http://www.ahrq.gov/research/health/health.asp

IX. AHRQ Bioterrorism Planning and Response Resource Page

http://www.ahrq.gov/browse/bioterbr.htm

This resource includes a listing of a variety of tools and resources on issues from community prophylaxis to surge capacity in health facilities.

Attachment B: Hospital Planning Resources (Cont'd)

A. Emergency Preparedness Resource Inventory (EPRI): A Tool for Local, Regional, and State Planners

(http://www.ahrq.gov/research/epri/ The Emergency Preparedness Resource Inventory (EPRI) is a tool allowing local or regional planners to assemble an inventory of critical resources that would be useful in responding to a bioterrorist attack. In addition to a Web-based software tool, EPRI includes an Implementation Report, a Technical Manual, and an Appendix.

B. Altered Standards of Care in Mass Casualty Events

http://www.ahrq.gov/research/altstand/index.html This report discusses the potential of a mass casualty event to compromise the ability of health systems to deliver services meeting established standards of care.

C. Computer Staffing Model for Bioterrorism Response

http://www.ahrq.gov/research/biomodel.htm This new resource is the Nation's first computerized staffing model that is downloadable as a spreadsheet or accessible as a Web-based version. It can be used to calculate the specific needs of local health care systems based on the number of staff they have and the number of patients they would need to treat quickly in a bioterrorism event.

D. Rocky Mountain Regional Care Model for Bioterrorist Events: Locate Alternate Care Sites During an Emergency

http://www.ahrq.gov/research/altsites.htm The alternate care site selection tool is designed to allow regional planners to locate and rank potential alternative sites—stadiums, schools, recreation centers, motels, and other venues—based on whether they have adequate ventilation, plumbing, food supply and kitchen facilities, and other factors.

E. Hospital Bed Definitions

http://www.ahrq.gov/research/havbed/definitions.htm

X. HRSA Bioterrorism and Hospital Preparedness

http://www.hrsa.gov/bioterrorism/preparationandplanning/healthcare&facilities.htm A comprehensive list of resources and documents.

XI. ASTHO "Preparedness Planning for State Health Officials - Nature's Terrorist Attack - Pandemic Influenza"

http://www.astho.org/pubs/PandemicInfluenza.pdf Provides checklists for state health officials to assist in preparedness planning. A brief summary of major issues to consider is also included.

Attachment B: Hospital Planning Resources (Cont'd)

XII. Educational Materials Samples

A. The TDH has developed educational posters and bookmarks on respiratory etiquette or "Cover your cough" in English and Spanish: these can be found on http://www2.state.tn.us/health/FactSheets/etiquette.htm

B. Additional posters developed by CDC can be found at http://www.cdc.gov/flu/protect/covercough.htm.

C. Posters developed by the Infection control professionals from Veteran's Affairs hospitals as part of their "Infection: don't pass it on campaign" can be found at http://www.publichealth.va.gov/InfectionDontPassItOn/detail_resp.htm

D. Flu related educational materials can be found at: http://www.health.state.ny.us/nysdoh/flu/resources.htm

XIII. HHS Healthcare Surge Capacity Document

http://www.os.hhs.gov/asphep/mscc_handbook.html

XIV. OSHA—Best Practices for the Protection of Hospital-Based First Receivers

http://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html

XV. Information on Handling Human Remains During Mass-Casualty Events

A. Interim Health Recommendations for Workers who Handle Human Remains www.bt.cdc.gov/disasters/tsunamis/handleremains.asp

B. Disposing of Liquid Waste from Autopsies in Tsunami-Affected Areas www.bt.cdc.gov/disasters/tsunamis/pdf/tsunami-autopsyliquidwaste.pdf

C. Management of Dead Bodies in Disaster Situations www.paho.org/English/DD/PED/ManejoCadaveres.htm

D. Health Concerns Associated with Disaster Victim Identification After a Tsunami—Thailand, Dec 26, 2004–Mar 31, 2005. MMWR 15 April 2005;54(14):349-52. www.cdc.gov/mmwr/preview/mmwrhtml/mm5414a1.htm

XVI. Presentations

A. *2004 AHRQ-sponsored series "Addressing Surge Capacity in a Mass Casualty Event"* http://www.hsrnet.net/ahrq/surgecapacity/

B. *Presentations from First National Congress on Public Health Readiness*
http://www.ama-assn.org/ama/noindex/category/11053.html
http://www.bt.cdc.gov/training/ncphr/
-CDC Presentations only
These slideshows represent presentations from speakers at the 1st National Congress on Public Health Readiness held July 20-22, 2004.

Attachment B: Hospital Planning Resources (Cont'd)

C. *"No Vacancy: Healthcare Surge Capacity in Disasters."*
http://www.ama-assn.org/ama1/pub/upload/mm/415/hick.ppt
Jonathan L. Hick, MD, Medical Director, Office of Emergency Preparedness, Hennepin County Medical Center, Minneapolis, Minnesota

D. *Bioterrorism Preparedness: A Hospital Tabletop Exercise*
SHEA 14th Annual Scientific Meeting, Philadelphia, PA April 17, 2004 Prepared by Kelly Henning, MD

E. *Seasonal & Pandemic Influenza 2006: At the Crossroads A Global Opportunity,* Washington, DC, January 31 to February 2, 2006. slides available at: http://www.shea-online.org/news/avianflu.cfm

Attachment C: Pandemic Influenza Coordinator Contact List

CONFIDENTIAL INFORMATION

(P) = Primary **(S) = Secondary (alternate)** **Updated September 30, 2006**

Attachment D1. Acute Care Hospital Assets

CONFIDENTIAL INFORMATION

Updated September 30, 2006

Attachment D2. Inpatient Rehabilitation and Mental Health Hospital Assets

CONFIDENTIAL INFORMATION

Updated September 30, 2006

Section 5 Vaccine Distribution and Use

I. Purpose

To administer vaccine against pandemic influenza in a way that best utilizes scarce resources in light of medical, societal, and ethical consideration with the goal to minimize disease morbidity and mortality.

II. General Assumptions

Hamilton County's plan for vaccine is based upon estimates of production time, capacity, and vaccine efficacy available at the time of this writing. Policies and procedures will be revised to reflect any changes in technology as they are developed.

1) Vaccine targeted to the pandemic strain will not be available at the outset of a pandemic event.

2) Vaccine will arrive in Hamilton County at least 4-7 months following the beginning a pandemic. Vaccine supplies will be received in relatively small, frequent shipments over many months.

3) Vaccine will be administered efficiently and monitored according to State and Federal guidance.

4) Vaccine will be administered to persons according to priority categories as established by State and Federal government agencies.

5) Two doses of vaccine will be required for full protection of an individual (given 1 month apart). The first dose primes the immune system and provides insignificant protection from disease.

6) Vaccine will not be allocated to a lower priority group until at least 75% of the estimated number of higher priority persons statewide have been vaccinated and/or supply exceeds the immediate demands in that group.

Vaccine Administration Priority Groups in Hamilton County during a Pandemic:

1) Vaccines will be administered in sequential order (Table 1).

Tier 1 will receive vaccinations first followed by each subsequent tier. Tiers and sub groups within tiers are based upon the following categories:

a) Direct patient care providers and those who maintain critical processes to keep health care facilities operational.

b) Persons most likely to suffer severe illness or death as a result of infections. Groups have been determined by the 2005 Federal guidelines and are subject to change once a pandemic virus emerges and disease patterns are characterized. High risk conditions are the same as those cited as high risk conditions for severe seasonal influenza.

2) Opening vaccination up to lower priority groups will be decided at the State level and implemented at the same time statewide.

3) Vaccination groups

Table 1. Tiers for Vaccination

Group	Sub-tier	Description	Estimated Total
TOP TIER **Health care service providers**	A.	Direct patient care providers in hospital settings (includes physicians with privileges who are not hospital employees) and top 10% of non-patient care personnel responsible for critical hospital operations	TBD
	B.	Direct patient care providers in outpatient facilities that will provide care to pandemic influenza patients (primary care, infectious disease, cardiology, pulmonology, oncology, diabetes, obstetrics, gastroenterology clinics, federally qualified health centers and outpatient public health clinics) and top 10 % of non-patient care personnel responsible for critical functions in theses facilities. Outpatient clinics that do not normally provide such care but alter their scope of service to provide care to infected patients during a pandemic wave also qualify.	TBD
	C.	Emergency medical service personnel (EMT-Ps, paramedics AND patient care providers in long-term residential care facilities	TBD
	D.	Certified first responder medical personnel (EMT) affiliated with fire and police departments.	TBD
	E.	Balance of non-patient care workers supporting essential functions in hospitals	TBD
	F.	Balance of non-patient care workers supporting essential functions in outpatient facilities providing care to pandemic influenza patients	TBD
	G.	Pandemic influenza vaccinators	TBD
	H.	Patient care providers in inpatient setting for non-pandemic influenza patients (e.g., Institutes for Mental Disease)	TBD
	I.	Health care providers in outpatient facilities providing essential medical services to non-pandemic patients (e.g., neurology, psychiatry, orthopedics, day surgery, pharmacists)	TBD
Tier 2 **Medically High Risk**	A.	Persons 6 months to 64 years with 2 or more influenza high risk conditions, not including essential hypertension	TBD
	B.	Persons 6 months or older with a history of hospitalization for pneumonia or influenza or other influenza high risk condition fin the past year	TBD
	C.	Persons $\geq$ 65 years with one or more influenza high risk condition, **not** including essential hypertension	TBD
Tier 3 **Medically High Risk**	A.	Pregnant women.	TBD
	B.	Household contacts of severely immunocompromised persons	TBD
	C.	Household contacts of children < 6 months of age	TBD

Table 1. Tiers for Vaccination (Cont'd)

Group	Sub-tier	Description	Estimated Total
Tier 4 Preservation of Social Function	A.	Public health emergency response workers critical to pandemic response, but not providers of direct patient care.	TBD
	B.	Key state and local government leaders	TBD
Tier 5 Medically At-risk	A.	6 months to 64 years of age with one high risk condition (other than essential hypertension).	TBD
	B.	6-13 months old, healthy	TBD
	C.	≥ 65 years of age and healthy	TBD
Tier 6 Preservation of Social Function	A.	Public safety workers who are non-EMTs (police, fire, 911 dispatch, correctional facility staff	TBD
	B.	Other public health emergency responders that do not provide direct patient care (about 2/3 of public health staff)	TBD
	C.	Utility workers involved in critical processes to support the work of power, water, sewage systems	TBD
	D.	Transportation workers involved in critical processes to support the work of power, water, sewage systems	TBD
	E.	Telecommunications/Information Technology (IT) staff for essential network operations and management	TBD
Tier 7 Preservation of Social Function	A.	Additional key government health decision-makers	TBD
	B.	Funeral directors/embalmers	TBD
Tier 8 Lowest Medical Risk	A.	Healthy persons 2-64 years not in above categories	TBD

4) Administration

Coordination of vaccine administration and distribution for Hamilton County will be the responsibility of a designated Vaccine Coordinator.

5) Communications

a) A vaccine administration point of contact is identified for each hospital and established outpatient facility. These points of contact will be responsible for providing lists of persons meeting the criteria for vaccination in each sub-group of tier one at their facility (refer to Attachment C of Section 4).

b) Vaccine administration points of contact at each hospital or outpatient facility are responsible for communicating to qualified personnel within their institution details of where and when to obtain vaccine.

c) Hospitals will provide lists of names of personnel to be vaccinated with priority levels noted to the Health Department Vaccine Coordinator for immunization. Vaccinees are responsible for reporting to their employer that vaccine was received. The Health Department Vaccine Coordinator will fax a copy of employees vaccinated to each major hospital facility as an additional measure to expedite patient care.

d) CHCHD will use multiple communication methods (website, TV/radio announcements, hotline) to reach persons meeting the criteria for vaccination in lower tiers. Targeted outreach will be used with practices that serve high risk patients.

6) Scheduling

Vaccinations will be given by appointment only. Vaccine recipients will require identification each time they present for a dose. Recipients requiring vaccination because of their occupation will require a form of identification from their employer and will need to be identified by name to the health department by their employer.

7) Documentation

a) Vaccine recipients will require identification each time they present for a dose.

b) Occupationally-defined recipients will be identified with a letter or placed on a list by their employer. They will also be required to bring personal photo-identification such as a driver's license, or employer identification card. A list will be kept of those receiving vaccine and updates will be sent to their employer.

c) Medical risk group recipients will be required to bring documentation of qualifying high risk condition (e.g. possession of prescriptions, medical records). They will also be required to bring personal identification- photo ID.

d) Each recipient of vaccine will be given an immunization card that documents date, type of vaccine, date of return for second dose, and provider.

e) Current Chattanooga-Hamilton County Health Department (CHCHD) flu encounter forms updated with new information will be used.

f) Data from the forms will be entered into software that conforms to State and Federal regulations. At a minimum, encounters will be entered into the AS/PTMBIS system at the time of vaccination.

8) Storage of vaccine

Vaccine will be stored at the CHCHD facility located at 921 E. Third Street. Ample storage space exists at this location. Existing security procedures will continue during this period (refrigerator will be locked, the room will be locked, only key individuals will have access to the room and refrigerator).

9) Security: (transport, storage, and administration)

a) Transport: security needs during transport of vaccine will be evaluated and monitored on a continual basis. CHCHD may employ use of police or armed escort of vaccine when vaccine is taken out into a community facility (hospital or clinic site) as circumstances warrant.

b) Storage: vaccine storage will be in the CHCHD pharmacy in a locked room with limited access. The vaccine storage unit will have generator back-up at all times. The unit is alarmed with a sensaphone.

c) Handling: general vaccine storage will be under the direction of the agency pharmacist and handled by assigned medical staff only. Cold chain requirements will be followed at all times. See Attachment A for Cold chain procedures. Vaccine will be shipped with specific paperwork to document vaccinations given.

10) Location of vaccine administration clinics

Location of the vaccine administration site(s) will depend on the amount of vaccine available, the estimated number of persons to be vaccinated, special needs of the priority group to be vaccinated and relevant security issues. Several basic sites are recommended in this plan and are outlined in Attachment B. Decision for selection and site use will be made by the Operations Chief in conjunction with others within the Incident Command System (ICS). Sites should be chosen based on the availability of space and the site amenities (tables, chairs , sinks, break-room, sleeping facility), security, storage needs, parking, communication ability, geographic location/accessibility to the community.

11) Personnel who will vaccinate

Recommended staffing patterns are based on a 2:1 ratio, 2 Patient Services Representative (PSR) to 1 nurse. The formula is based on a nurse being able to vaccinate 1 person every 5 minutes. Adjustments to staffing will be made according to the amount of vaccine that has been received and the number of persons to be vaccinated. See Attachment C for staffing formulas.

12) Availability of necessary equipment and supplies

Emergency Preparedness supplies (stored in Supply Room) will be used for vaccination processes during a Pandemic Influenza event. See Attachment D for listing of necessary supplies and equipment. Supplies should be managed by an assigned staff member who will work in coordination with the designated Health Department Vaccine Coordinator and the CHCHD Supply Room staff.

13) Training

In the event of a Pandemic Influenza Event, staff (vaccinators) would be trained on the proper use of the newly developed Pandemic Influenza Vaccine and/or an experimental vaccine if a vaccine containing the known components of the circulating flu is not yet available. The definition of staff, as used here, may not be limited to Health Department personnel and may include medical staff from local hospitals and other health care facilities.

a) The training shall include the following topics related to influenza and the influenza vaccine:

i) Epidemiology

- Patterns – if known

ii) Clinical Features

- Incubation period
  - Period of communicability
  - Transmission
  - Signs/Symptoms
  - Course of disease
  - Complications

iii) Prophylaxis

- Rationale
- Vaccine description
- Vaccine recommendations – special attention should be placed on this part of the training as the recommendations for use will be extremely different from seasonal influenza vaccine use.
- Adverse reactions to vaccine
- Contraindications
- Precautions
- Dosage
- Administration
- Storage (cold chain requirements)

b) Training prior to the arrival of the vaccine may not be possible. Training may more likely be “just in time”, especially if an experimental vaccine is being used.

14) Database Process

The database used shall conform to State and Federal Government recommendations. The AS400 computer system will be utilized and data will be entered in real time as vaccinations occur. Staff will be trained appropriately on applicable codes and processes. At minimum, encounters will be entered into the AS400/PTBMIS system as vaccines are given (real time entry).

15) Vaccine safety monitoring

CDC's Vaccine Adverse Event Reporting System (VAERS) guidelines will be used to document any known or suspected adverse reaction to the vaccine used. Those vaccinated will be given information of who to contact if a reaction should occur after vaccine received. Existing Health Department protocol will be followed. The manager over the clinic is responsible for taking reports.

16) Investigational New Drug Protocol process

In the event that the pandemic influenza vaccine is given as part of an investigational new drug protocol, Federal/State guidance on issuing consent forms, information sheets, or any other information to vaccine recipients will be followed. If more space is needed to vaccinate the community for this purpose, the agency will determine what space is needed and open appropriate Points of Dispensing (POD) at that time. The staffing formula outlined in Attachment C will be used to determine staffing needs.

17) Needs of vulnerable populations

Potential vulnerable populations are identified as those who are unable to access vaccination sites due to conditions such as immobility, incarceration or due to lack of information/transportation. These may include persons who are:

- homeless
- mentally ill
- elderly
- those with physical disabilities
- language barriers
- those without transportation

Additional groups of vulnerable populations may be identified at the time of a pandemic outbreak. The CHCHD vaccination plan covers health care institutions such as nursing homes, mental health facilities and prisons according to the State and Federal plans. In the event that vaccine is available for persons in these priority groups, CHCHD will work out a cooperative agreement with each agency for vaccine distribution. The Homeless Health Care clinic may be set up as an additional vaccination site during the phase of mass vaccination. Hamilton County has begun the process of developing a detailed Special Populations Response Plan.

18) Tracking

Tracking of vaccine usage for allocation of vaccine distributions, use and monitoring will occur thru systems as determined and allocated by the State Department of Health.

Attachment A. Cold Chain Requirements

Once the vaccine is received in the pharmacy at the Health Department it must be kept within the appropriate range of 2° C - 8° C (35° - 46° F). Upon arrival in the pharmacy the vaccine will be checked to ascertain that it was transported within the proper temperature range. Number of vials/pre-filled syringes will be inventoried and transferred into one of several secure refrigerators within the Health Department. *All refrigerators used for storing vaccines/biologicals are monitored for proper temperature.* Vaccine for Pan Flu use will be stored in a refrigerator unit that has a back-up generator and is also alarmed with a sensaphone. Any problems with the vaccine shipment will be reported immediately to the Health Department Administrator and Health Officer.

Vaccine to be used at off-site locations will be packed into clinic supply coolers with cool packs, insulation materials, and digital thermometers with the current temperature within the cooler prominently displayed on the outside of the cooler. The coolers should be packed in this manner: cool packs on the bottom, a layer of insulation i.e., cardboard or a thin layer of Styrofoam, vaccine and the thermometer probe, a layer of insulation, and cool packs on top. The vaccine **must never** rest directly on the cool packs as this may cause the vaccine to freeze and be rendered unusable.

A temperature log will be maintained for each cooler. Temperature of each cooler **must be** monitored hourly or more often as necessary and documented on the log. Cool packs may be adjusted as necessary to ensure the temperature within the cooler is maintained at the proper temperature of 2° C - 8° C (35° - 46° F). One person shall be designated to monitor the vaccine supply and temperature. Due to the extreme importance of maintaining the limited vaccine supply at the proper temperature, this should be this designated person's only job duty. If the vaccine is discovered to be outside the temperature range, it should be reported to the Site Manager immediately and every effort should be made to determine how long the vaccine has been outside the temperature range.

Note: Specific guidance from the manufacturer that can not be known at this time may necessitate changes to this procedure.

Attachment B: Vaccination Sites

Priority Tier To Be Vaccinated	Potential Sites	Staffing Required	Location Benefits	Security Issues	Other
Top Tier **Health Care Service Providers**	Hospital location	Minimum: - 2 nurses - 2-3 clerks *(see staffing formula)*	• Hospital staff do not have to leave work facility for vaccine. • Gives limited control of vaccine distribution to agency. • Ability to vaccinate in several facilities simultaneously (pending availably of HD staff).	• Requires vaccine to be transported to multiple sites with minimal security.	• Exposure risk requires unvaccinated staff to be in high risk areas of hospital. • Travel factor may prolong vaccine completion for this tier. • May prohibit real time data entry. (recommend use of lap tops if possible for real-time data entry) • Challenges to cold chain requirements
	Health Department	Minimum: - 2 nurses - 2-3 clerks *(see staffing formula)*	• Centrally located • Adequate parking • Secured location • Vaccine is not transported • Control over facility access, use, etc. • Generator back-up for electricity. • Promotes social distancing principles (supply room location). • Computer system for data entry readily available- promotes real time data entry. • Easy supply access	• See benefit column; • Minimal entry points; some areas have multiple entry points which should be taken into consideration.	Note: multiple clinic areas are available; selection should be based upon specific situational needs and circumstances.

Attachment B: Vaccination Sites (Cont'd)

Priority Tier To Be Vaccinated	Potential Sites	Staffing Required	Location Benefits	Security Issues	Other
Top Tier: Expanded health Care service providers, emergency responders Tier 2: Medically High Risk	• TBD	Minimum: -2 nurses -3 clerks *(see staffing formula*)	• Centrally located • Adequate parking • Secured location • Generator back-up for electricity (in some facilities).	• Requires that vaccine be transported • Building layout and availability unknown at present –under investigation. • Further investigation and collaboration is needed for use of these agency facilities	• Limited control over facility access, use, etc. • Facilities may not be available at time of need
Tiers 3-8	Community PODs (Mass distribution points)	See Staffing formula 2:1 ratio; nurses to clerical staff	• Selection and use of community PODs has been determined through Agency response plan; Homeland Security	• Police/security personnel would be required for each site	• Requires transport of vaccine; • Challenges to cold chain requirements. • Challenges to social distancing principles and practices.

Attachment C. Staffing Formulas

Clinic Size	Staffing Patterns	Clinic Schedules
Small – individual hospitals	• minimum of 2 nurses and 2 clerks • security staff member per site • vaccine supply coordinator	• Flexible times as needed, based upon hospitals needs
Small/controlled site (top tiers)	• 2:1 ratio (nurses to clerks) • security staff member • vaccine supply coordinator	• Run 1 – 2 shifts daily depending on need
Mass Clinic PODS (groups larger than 300)	• 5 nurses per shift • 10 PSRs per shift- 4 check-in, 2 float with general assistance to clients and nurses, 4 data entry • 1 clinic manager per shift • 1 assistant manager per shift • 1 medical evaluator per shift to be “on call” • 2 security officers per shift • 1 vaccine supply coordinator per shift (monitor supplies and cooler/refrigerator temperatures) • Total of 20 staff members per 8 hour shifts	• Run 2 shifts daily; provision of 1000 vaccinations per day through two 8 or two 12 hour shifts (16 hour days or 24 hour days)

Attachment D. Mass Clinic Supply and Equipment Checklist

Number _____ of _____

Clinic Site:

Equipment Needs

- ☐ Copier
- ☐ FAX Machine
- ☐ 5 DVD or VCR Players
- ☐ 12 Computers or Laptops
- ☐ Hand-held Radios
- ☐ 5 Large-Screen Televisions
- ☐ Cell Phones

General Supplies

- ☐ Tables and Chairs
- ☐ File Boxes
- ☐ Food and Drink for Staff
- ☐ Stapler/Staples
- ☐ Paper
- ☐ ID Badges for Staff
- ☐ Table Pads and Clean Paper
- ☐ Scissors
- ☐ 7 Copies of Video
- ☐ Water and Cups
- ☐ Trash Bags
- ☐ Tissues
- ☐ Paper Clips
- ☐ Telephone
- ☐ Envelopes
- ☐ Garbage Containers
- ☐ Pens, Pencils
- ☐ Rubber Bands
- ☐ Post-It Notes
- ☐ Tape
- ☐ Cleaning Supplies
- ☐ Paper Towels
- ☐ List of Emergency Phone Numbers

Crowd Management and Triage Supplies

- ☐ Queue Partitions
- ☐ Signs for Clinic Flow
- ☐ Signs for Site Designation

Vaccine Administration Supplies

- ☐ Latex-free Gloves
- ☐ Acetone
- ☐ Vaccine Diluent
- ☐ Smallpox Vaxicools/Refrigerator
- ☐ Latex Gloves
- ☐ Adhesive Tape
- ☐ Rectangular Band-Aids
- ☐ Gauze
- ☐ Sharps Containers
- ☐ Sterilized Bifurcated Needles
- ☐ Vaccination Screens
- ☐ Paper Gowns
- ☐ Spray Bottle of Bleach Solution
- ☐ Anti-bacterial Hand Washing Solutions

Emergency Supplies

- ☐ Standing Orders for Emergencies
- ☐ Gurney
- ☐ “Code" Kit with Defibrillator
- ☐ Flashlight
- ☐ Ampules of Epinephrine 1:1000 SQ, or
- ☐ Thermometer
- ☐ EPI Pen Adult/ EP Pen Child
- ☐ Alcohol Wipes
- ☐ ER Report Form
- ☐ 1.5" Needles
- ☐ Ampules of Diphenhydramine (50 mg IM)
- ☐ Tongue Depressors
- ☐ Tuberculinsyringes with 5/8" Needles
- ☐ Oxygen Tank Tubing
- ☐ Aspirin, Tylenol, Regular Insulin, D50
- ☐ Oxygen Tank
- ☐ Blood Pressure Cuffs (Various Sizes)
- ☐ Tourniquet
- ☐ Adult and Pediatric Airways
- ☐ Stethoscope
- ☐ Adult Pocket Masks with One-Way Valve
- ☐ Emesis Basis
- ☐ Pediatric Pocket Masks with One-Way Valve
- ☐ Asthma Inhaler
- ☐ Cots, Blankets, and Pillows
- ☐ IV Solution
- ☐ IV Solution Tubing

1) Supply Information

Items (currently available)	How packaged
Gloves: • Large – 18 cases = 18000 • Medium – 38 cases = 38000 • Small – 39 cases = 39000	10 boxes of 100/case
Sharps: 5 quart	240 containers available
Syringes: Vanishpoint • 25G X 1" – 26 cases + 10 boxes = 16600 • 22G X 1½" – 31 cases + 2 boxes = 18800 • 25G X 5/8" – 10 boxes = 1000	6 boxes of 100/case 6 boxes of 100/case 100/box
Masks: • Procedure masks – 9 cases = 2700 • High performance procedural dental mask with ear loop – 4 cases = 2000 • Fluid resistant procedural mask – 5 cases = 10000 • N95 1860 (medium) – 15 boxes = 300 • N95 1860S (small) – 7 boxes = 140 • N95 1870 – 12 boxes = 240	6 boxes of 50/case 10 boxes of 50/case 4 boxes of 500/case 20/box 20/box 20/box

(as of 7/28/06)

2) General Information:

- Band-aids, alcohol preps, red bags, hand sanitizer, and needles are all supply room stock items (medical) and should be present in sufficient amounts.

- Other supplies needed (clerical) will include flu VIS, privacy notice, pens, paper clips, rubber bands, stapler, and staples. These items should also be present in sufficient amounts.

Section 6. Antiviral Drug Distribution and Use

I. Purpose

To optimize the use of antiviral medications under state control to minimize morbidity and mortality from pandemic influenza. To prevent hoarding, theft, and misuse of antiviral medications.

II. Situation

Antiviral medications, primarily neuraminidase inhibitors, are expected to be the only specific therapeutic agents available to treat or prevent influenza at the onset of a pandemic. The state of Tennessee will have access to stockpiles of antivirals through federal and/or state stockpiles.

To maximize benefit, antivirals should be administered as quickly as possible after onset of symptoms. For example, antivirals fail to affect the duration of illness with seasonal influenza if administered > 48 hours after symptom onset. The optimal timing, dosage, and duration of treatment for pandemic influenza may be known only after the pandemic begins. Treatment guide-lines will be disseminated as they become available.

III. Assumptions

Priorities in this plan reflect the federal priorities issued in November 2005; state and local guidelines will be adjusted to conform to changes in federal guidelines to optimize treatment effectiveness. Antiviral distribution and tracking will follow federal guidelines. Future revisions of the state pandemic plan will reflect significant changes in the quantity of antivirals available in Tennessee and changes in scientific understanding of optimal treatment. The Chattanooga-Hamilton County Health Department (CHCHD) plan will be dependent on these changes and will be adjusted to conform to these changes as they transpire.

The supply of antivirals will be inadequate to treat everyone who would benefit from them. They should be used to minimize severe morbidity and mortality; specific ethical guidance on the use of scare resources is provided in the Hospital Planning Section, Ethical Allocation of Scarce Resources. Antivirals should be used in accordance with federal priority guidelines. As of this writing, the top priority is the treatment of hospitalized patients.

The Federal Priority Guidelines define this hospitalized priority group as persons admitted to an acute care facility (traditional or non-traditional) with a clinical diagnosis of influenza; laboratory confirmation not required. Excludes persons admitted for a condition consistent with a bacterial superinfection (e.g., lobar pneumonia developing late after illness onset) or after viral replication and shedding has ceased (e.g., as documented by a negative sensitive antigen detection test). The strategy is for treatment to begin within 48 hours of symptom onset. The rationale for this plan is that this group is at greatest risk for severe morbidity and mortality. Although there are no data to document the impacts of antiviral drug treatment among persons who already suffer more severe influenza illness, benefit is biologically plausible in persons with evidence of ongoing virally mediated pathology (e.g., diffuse pneumonia, ARDS). Providing treatment to those who are most ill is also consistent

with standard medical practices, would be feasible to implement, and would be acceptable to the public.

Antivirals will not be used for prophylaxis except as approved by the Commissioner of Health, State Epidemiologist or their designee in exceptional circumstances during the pre-pandemic period as outlined at the end of this section. The primary reason for discontinuing prophylaxis during a pandemic is that 6 to 10 treatment courses would be necessary to prophylax a single healthcare provider through a pandemic wave; the supply of antivirals will be too small to divert so many courses away from patients needing treatment.

The federal government may federalize supplies of antivirals at distributor warehouses; if not, the state shall secure any available antivirals at distributor warehouses in Tennessee in order to distribute them to acute care hospitals for the treatment of sick patients. This plan presumes a scenario where a pandemic strain is causing severe disease; in the event of a mild pandemic, the state may not implement all possible steps.

IV. Concept of Operations

A. Controlled Substance Regulation

Immediately after the Centers for Disease Control and Prevention (CDC) or World Health Organization (WHO) declare that a novel influenza virus is spreading easily from person to person (WHO Phase 5) and causing severe disease, the Department of Health may issue an emergency regulation classifying antiviral medications indicated for treatment of influenza infection (e.g., oseltamivir and zanamivir) as controlled substances. All necessary regulations for controlled substances will be implemented; Drug Enforcement Agency (DEA) numbers will be required on all prescriptions and supplies secured and tracked.

B. Control of Antivirals in Distributor Warehouses

In the absence of federalization of all antiviral supplies, the Governor may issue an executive order placing under state control antiviral medications or other essential medical supplies at distributor warehouses in Tennessee and allocating them to the state antiviral stockpile. Because antiviral supplies available in retail pharmacies are small and widely dispersed, no actions to redistribute medications from retail pharmacists are planned, though the state will collaborate with the Tennessee Pharmacy Association (TPA) to strongly recommend these medications be used in a manner consistent with state priorities to minimize severe illness and death. The state will work with the TPA to communicate recommendations and distribute information to pharmacists state-wide.

C. Strategic National Stockpile (SNS)

Stockpiles under state control will be distributed through the SNS distribution system as outlined in the Tennessee Emergency Management Plan. The State SNS Coordinator, located in the Communicable and Environmental Disease Services section of the Department of Health, will oversee the distribution of state and federal stockpiled supplies to inpatient hospital pharmacies.

The 2005 federal guidelines give top priority for antiviral treatment to patients requiring hospitalization; for this reason, antivirals under state control will be distributed to inpatient hospital pharmacies.

The federal government indicates that antiviral supplies will be pre-positioned in the state; terms of this pre-positioning are forthcoming at this writing. Ultimately, supplies will be placed in inpatient hospital pharmacies for dispensing. If supplies must be sent to Tennessee before federal pre-positioning plans are in place, stockpiled antiviral medication will be allocated to the inpatient pharmacies of acute care hospitals in the state of Tennessee. Hospitals should store stockpiles in a highly secure location until they are needed. The potential for theft or misuse is considered high.

D. Monitoring and Data Collection

To ensure optimal use of antiviral drugs during an influenza pandemic, state and local health departments and healthcare partners will be prepared to work with federal officials and collect data on:

1) **The distribution of SNS antivirals.** Approximately 60% of the stockpile available in Tennessee will be allocated initially to each of the acute care hospitals in proportion to the number of staffed beds in the most recently reported year.

Equation (for the 60% of the stockpile initially distributed): (# staffed beds in most recently reported year divided by # staffed beds in all TN hospitals) X (# treatment courses available) = # treatment courses sent to the hospital.

The balance of the stockpile will be distributed to hospitals to replenish depleted supplies based upon documented appropriate use. Regional Hospital Coordinators will monitor proper use and inventory of antiviral medications and communicate needs to the SNS Coordinator. Decisions concerning subsequent allocations will take into account hospital inpatient surveillance data, whether a hospital enforces state guidelines for the appropriate use of antivirals for inpatients and whether it provides adequate safeguards against theft or misuse.

Patients requiring outpatient doses to complete their treatment course will be discharged with antivirals properly labeled from the inpatient pharmacy supply.

2) **The effectiveness of the antiviral.** CHCHD, in collaboration with the state and other healthcare and academic partners, will be prepared to provide information to federal agencies to analyze the effectiveness of antiviral drug therapy, taking into account characteristics that will vary among individuals and those that may vary over time, such as diagnostic practices, length of time to initiate therapy, and changes in the pandemic virus. Assessments will be made comparing rates of severe influenza-related illness and death among treated and untreated persons and among persons who did and did not receive prophylaxis. (At the time of this writing prophylaxis treatment is

not recommended during a pandemic due to the shortage of supply of antivirals).

3) **Any adverse events from the use of the antiviral drugs.** Serious adverse events associated with the use of antiviral drugs will be reported according to Immunization protocol. Data will be reported to the FDA, using the MEDWATCH monitoring program. Use of antivirals will be much greater during a pandemic than during regular influenza season, therefore, to help improve the detection of serious adverse effects (especially rare effects or effects in vulnerable populations), additional efforts to encourage recognition and reporting of adverse events will be taken. These efforts might include:

a) Active monitoring for adverse events observed at emergency rooms, through the National Electronic Injury Surveillance System Cooperative Adverse Drug Event project (NEISS-CADE)

b) Local campaigns to educate healthcare workers about the recognition and reporting of adverse events

c) Distribution of MedWatch forms and descriptions of known adverse events to each end-user who receives antiviral drugs from the stockpile.

d) Procedures in regard to adverse events will follow the guidance from the Tennessee Department of Health.

4) **Antiviral drug resistance.** The local health department will work with the state and the CDC to monitor the development of resistance to antivirals. Because resistance to M2 inhibitors may involve a single base pair change, resistance may be particularly important during the later stages of the pandemic, especially if M2 agents have been widely used. State and local health departments will encourage clinicians to obtain specimens from patients who develop severe disease while receiving antiviral treatment. These specimens will be provided on a periodic basis, preferably after testing them by RT-PCR, viral culture, or rapid diagnostic testing to confirm the presence of strains of influenza A.

E. Hospital Stockpiles

Hospitals that have invested in their own stockpiles using federal grant money or other funds will use their own antivirals according to guidance from the Tennessee Department of Health and the terms of the funding. For example, many Tennessee hospitals receive federal funds that may be invested in antivirals or protective equipment for the use of hospital personnel. It is recommended that these resources be used to treat ill personnel only, not for prophylaxis, because antivirals are unlikely to be available for purchase after a pandemic begins.

Hospital personnel may be treated using antivirals from the general state or federal stockpile if they meet the standard state criteria for treatment with antivirals from the SNS (e.g., if they require inpatient care and treatment is possible within the appropriate timeframe).

F. Contingency Planning for Investigational New Drug (IND) Use

State and local health departments along with healthcare partners will be prepared to distribute unlicensed antiviral drugs (if needed) under FDA's Investigational New Drug (IND) provisions. IND provisions require strict inventory control and recordkeeping, completion of a signed consent form from each person who receives the medication, and mandatory reporting of specified types of adverse events. IND provisions will also require approval of the protocol and consent form by an Institutional Review Board (IRB). The FDA regulations permit the use of a national or "central" IRB. A treatment IND is one IND mechanism that FDA has available for use and is especially suited for large scale use of investigational products.

G. Pre-pandemic Phase: Antivirals for Post-exposure Prophylaxis (WHO Phases 3-5)

Antivirals may be approved by the Commissioner of Health, State Epidemiologist, or their designee for post-exposure prophylaxis in two settings during the pre-pandemic phase:

1) Following high risk exposure to poultry, wild birds or a person infected with a novel influenza virus capable of causing human infection (e.g., H5N1 avian influenza)

2) To prevent the beginning of community transmission of a pandemic virus in the state by providing post-exposure prophylaxis to those with high risk exposure to a traveler infected with an influenza virus with pandemic potential

H. Dosage Recommendations for Antivirals

Pediatric Use

None of the available influenza antivirals are currently FDA approved for use among children aged < 1 year. In particular, the safety and efficacy of oseltamivir have not been studied in children aged < 1 year for either treatment or prophylaxis of influenza. The decision by an individual physician to treat children aged < 1 year in an emergency setting on an off-label basis with an antiviral must be made on a case-by-case basis with full consideration of the potential risks and benefits. Additional human data on the safety of these agents in the treatment of influenza in young children are needed.

Oseltamivir is available as an oral suspension for use in children. This formulation of oseltamivir may not be available in sufficient supply during a pandemic to treat all pediatric patients. If physicians consider opening 75 mg oseltamivir capsules and using the contents in an attempt to deliver a partial, pediatric dose to children, it must be recognized that there are insufficient data on palatability, stability, and dosing consistency to predict the safety or effectiveness of such unapproved use. Additional study of these issues is needed. The Tennessee Department of Health recommendations in this matter should be followed, especially with stockpiled antivirals.

Table 1. Characteristics of Anti-Influenza Antiviral Drugs

Drug	Inhibits	Acts on	Administration	Common Side Effects
Amantadine	M2 ion channel	Influenza A	Oral	Central Nervous System (CNS), Gastro-Intestinal (GI)
Rimantadine	M2 ion channel	Influenza A	Oral	CNS, GI (less often than amantadine)
Oseltamivir	Neuraminidase	Influenza A and B	Oral	GI
Zanamivir	Neuraminidase	Influenza A and B	Inhaler	Bronchospasm

These agents differ in mechanisms of action, pharmokinetics, FDA-approved indications, dosages, cost, and potential for emergence of drug resistance (see July 2005 recommendations of the AHIC http://www.cdc.gov/mmwr/PDF/rr5408.pdf).

The neuraminidase inhibitors and rimantadine are superior to amantadine with regard to the frequency of serious side effects.

Table 2. Recommended Daily Dosage of Antivirals for Treatment and Chemoprophylaxis*.

Antiviral Agent		Age Group (yrs)				
		1-6	7-9	10-12	13-64	≥65
Zanamivir*	Treatment, influenza A and B	N/A†	10 mg (two inhalations) twice daily	10 mg (two inhalations) twice daily	10 mg (two inhalations) twice daily	10 mg (two inhalations) twice daily
	Chemoprophylaxis, influenza A and B	**Ages 1-4** N/A†	**Ages 5-9** 10 mg (two inhalations) once daily	10 mg (two inhalations) once daily	10 mg (two inhalations) once daily	10 mg (two inhalations) once daily
Oseltamivir	Treatment§, influenza A and B	Dose varies by child's weight¶	Dose varies by child's weight¶	Dose varies by child's weight¶	75 mg twice daily	75 mg twice daily
	Chemoprophylaxis, influenza A and B	Dose varies by child's weight**	Dose varies by child's weight**	Dose varies by child's weight**	75 mg once daily	75 mg once daily

NOTE: Zanamivir is manufactured by GlaxoSmithKline (Relenza®—inhaled powder). Oseltamivir is manufactured by Roche Pharmaceuticals (Tamflu®—tablet). This information is based on data published by the Food and Drug Administration (FDA).

* Zanamivir is administrated through oral inhalation by using a plastic device included in the medication package. Patients will benefit from instruction and demonstration of correct use of the device. Zanamivir is not recommended for those persons with underlying airway disease.

† Not applicable.

§ A reduction in the dose of oseltamivir is recommended for persons with creatinine clearance <30 mL/min.

¶ The treatment dosing recommendations of oseltamivir for children weighing ≤15 kg is 30 mg twice a day; for children weighing >15-23 kg, the dose is 45 mg twice a day; for children weighing >23-40 kg, the dose is 60 mg twice a day; and for children >40 kg, the dose is 75 mg twice a day.

** The chemoprophylaxis dosing recommendations of oseltamivir for children weighing ≤15 kg is 30 mg once a day; for children weighing >15-23 kg, the dose is 45 mg once a day; for children weighing >23-40 kg, the dose is 60 mg once a day; and for children >40 kg, the dose is 75 mg once a day.

Section 7. Community Interventions

I. Purpose

To lower the peak numbers of cases during a pandemic wave by preventing opportunities for widespread viral transmission in crowded group settings.

II. Situation and Assumptions

1) State recommendations for community interventions will be based on the current pandemic influenza epidemiology.

2) The Chattanooga Hamilton County Health Department will follow state guidance, including specific measures and timeline, for implementation of community interventions.

3) The Health Officer will involve legal consultants and law enforcement as needed in the planning and implementation stages.

4) Multiple communication methods (fax, email, and phone and press release, if indicated) will be used to disseminate information.

5) Dissemination of information will be handled on an immediate basis unless other management is directed by the Tennessee Department of Health or CHCHD administration.

III. Concept of Operations

A. Procedure for Suspension of Discretionary Public Gatherings of >100 Persons

1) A list of places where large public gatherings take place in a confined space. Distribution lists (fax and email) will be utilized and pre-programmed to speed dissemination of information.

2) Announcements of suspensions and lifting of suspensions will also be shared with the public through the media.

3) Templates of notifications and press releases will be developed in advance.

4) The Health Officer will order dissemination of the suspension notice immediately after notification is received from the Tennessee Department of Health State Epidemiologist.

B. Procedure for Suspension of Discretionary Public Gatherings of >10,000 Persons

1) A list will be compiled of facilities that house >10,000 persons as well as the event planners or agencies that book them. Distribution lists (fax and email) will be utilized and pre-programmed to speed dissemination of information.

2) Announcements of suspensions and lifting of suspensions will also be shared with the public through the media.

3) Templates of notifications and press releases will be developed in advance.

4) The Health Officer will order dissemination of the suspension notice immediately after notification is received from the Tennessee Department of Health State Epidemiologist.

C. Exceptions not Subject to Suspension

The health department will follow state guidance on exceptions to suspensions. However, for situations not specifically covered by state guidance or when a decision at the local level is needed, such as suspensions of events with <100 people, the Health Officer will provide guidance.

D. Roles and Responsibilities

State guidance will be followed.

E. Criteria for Implementation

State guidance will be followed.

F. Criteria for Lifting Restrictions

1) The procedure for lifting of suspension for discretionary public gatherings will be applied to those events where >100 persons gather.

a) A list of voluntary and non-essential gatherings of >100 persons will be compiled. Distribution lists (fax and email) will be utilized and pre-programmed to speed dissemination of information.

b) Announcements of suspensions and lifting of suspensions will also be shared with the public through the media.

c) Templates of notifications and press releases will be developed in advance.

d) The Health Officer will order dissemination of information immediately after notification is received from the Tennessee Department of Health State Epidemiologist.

2) The procedure for suspension and lifting of suspension of very large discretionary public gatherings will be applied to those events where >10,000 persons gather.

a) A list will be compiled of facilities that house >10,000 persons as well as the event planners or agencies that book them. Distribution lists (fax and email) will be utilized and pre-programmed to speed dissemination of information.

b) Announcements of suspensions and lifting of suspensions will also be shared with the public through the media.

c) Templates of notifications and press releases will be developed in advance.

d) The Health Officer will order dissemination of information immediately after notification is received from the Tennessee Department of Health Epidemiologist.

G. Stages of Social Distancing

1) Stage 1 – Domestic transmission of pandemic virus with a loss of epidemiologic links among cases is confirmed in the United States by CDC.

a) State Guidance will be followed on implementation.

b) Communication of information, instructions, and prevention measures will occur using pre-developed contact lists and multiple methods: Pre-developed press releases, the Hot Line, the Health Department web site, and interviews with the media.

2) Stage 2 – Domestic transmission of pandemic virus with a loss of epidemiologic links among cases is laboratory confirmed in Tennessee by CDC or State Laboratory

a) State guidance will be followed on implementation of suspensions.

b) Communication of information, interventions, instructions, and prevention measures will occur using pre-developed contact lists and multiple methods: Pre-developed press releases, the Hot Line, the Health Department web site, and interviews with the media.

3) Stage 3 – Pandemic waves ends in affected county

a) State guidance will be followed on lifting of suspensions.

b) Communication on instructions will occur using pre-developed contact lists and multiple methods: pre-developed press releases, the Hot Line, the Health Department web site, and interviews with the media.

4) Stage 4 – Period between pandemic waves

a) No restrictions in place.

b) Communication will occur using pre-developed contact lists and multiple methods: Pre-developed press releases, the Hot Line, the Health Department web site, and interviews with the media.

c) A review of the Intervention/Communications process will be conducted and adjustments made if indicated for the future.

5) Stage 5 – Resumption of restrictions in subsequent pandemic waves.

a) State guidance will be followed.

b) Adjusted (if applicable) local plan will be followed.

Supplement 1- Legal Authority

H. Purpose

To define the legal authority and options for social distancing measures, focusing on the isolation and quarantine orders that may be issued.

II. Definitions

Social Distancing: involves a range of policies designed to prevent opportunities for the disease to spread in crowded settings where ill and well people mingle.

Isolation: to restrict the liberty of a sick person reasonably suspected of having a communicable disease in order to prevent the spread of that disease to others.

Quarantine: to restrict the liberty of a well person suspected of having been exposed to a communicable disease until the incubation period has passed or until they become ill and are isolated. This is used to prevent people from spreading disease before they realize they are sick.

Quarantine laws cover both isolation and quarantine as described above and any other restrictions.

Sick people under investigation will be isolated in the hospital, at home, in an alternative facility or at work. Most people exposed to a probable or confirmed patient will be asked to monitor their own symptoms and will be given instructions about what to do if they develop a fever or respiratory symptoms.

III. Legal Authority

The legal authority for public health actions are outlined below and have been paraphrased for clarity. These laws and the Tennessee Department of Health's (TDH) rules and regulations apply state-wide. There may be additional local and county laws that apply.

A. Authority to Write and Enforce New Rules and Regulations

Tennessee Code Annotated (TCA) 68-1-201 (2): Commissioner of Health has the power to declare quarantine and prescribe rules or regulations deemed necessary to prevent the introduction of an epidemic disease into the state or to control the spread of an epidemic disease within the state, with the least inconvenience to commerce and travel. TCA 4-5-208: If needed immediately, "emergency rules" can be written and go into effect for up to 165 days. See also 68-5-104 a (2).

B. Authority to Control a Communicable Disease

TCA 68-5-104(a)(1) It is the duty of the local health authorities, on receipt of a report of a case, or suspected case…to confirm or establish the diagnosis, to determine the source or cause of the disease and to take such steps as may be necessary to isolate and/or quarantine the case or premise upon which the case, cause or source may be found, as may be required by the rules and regulations of the state department of health.

Tennessee Rules and Regulations 1200-14-1-.15: It is the duty of the local health officer, Commissioner, or his designated representative (upon getting a report of a communicable disease case or a suspected case) to:

1) Confer with physician, hospital, laboratory, or person reporting

2) Collect specimens necessary to confirm diagnosis or identify source of epidemic or infection

3) Make a complete epidemiologic investigation including but not limited to: review medical and relevant non-medical records, interview affected people and controls, and create a communicable disease field record

4) Implement appropriate control measures which may include: isolation, quarantine, exclusion, disinfection, immunization, disease surveillance, closure of establishment, education, and other measures considered appropriate by medical experts (e.g., Red Book, Centers for Disease Control and Prevention (CDC) for the protection of the public's health

C. Authority to Review Medical and Non-medical Records Without Delay

Tennessee Rules and Regulations 1200-14-1-.15(2): Medical and relevant non-medical records shall be made available when requested, for inspection and copying, by an authorized representative of the Department of Health when investigating a case, suspect case, or epidemic. The original medical records will not be removed from the health facility, and the information will be treated as confidential and sensitive.

D. Duty of Health Professionals to Report Potential Health Threats

Tennessee Rules and Regulations 1200-14-4-.03: any licensed practitioner of the healing arts must report to the Commissioner or a health officer any person they have reason to believe is or may be a health threat to others by potentially exposing them to an infection that causes serious illness.

IV. Legal Control Measures

The Commissioner of Health or a designee may take steps to contain the spread of a novel influenza virus with enforcement ranging from unsupervised voluntary measures to court-ordered measures enforceable by law enforcement. The declaration of a state of emergency by the Governor of Tennessee may alter the requirements necessary to quarantine or isolate individuals and would likely streamline actions required for quarantine and isolation by the TDH.

A. Legal Authority for Social Distancing

Pursuant to T.C.A. § 4-5-208, the Commissioner of Health is authorized to issue the emergency rules and regulations he or she deems necessary to protect the public and control the spread of an epidemic disease in the state. Emergency rules may be issued once a pandemic is imminent establishing the terms and conditions for mandatory suspension of discretionary public gatherings.

In addition to the emergency rule-making procedures, executive orders from the Governor during a state of emergency may be used to authorize such measures.

B. Mandatory versus Recommended Social Isolation

In milder pandemics, avoiding crowded public settings may be strongly recommended, rather than mandated. Based upon experience with modern quarantine during the 2003 outbreak of Severe Acute Respiratory Syndrome (SARS), cooperation with Department of Health (TDH) emergency regulations to control disease is expected to be good, though law enforcement support may be used to ensure compliance where necessary; civil arrest is possible pursuant to regulations outlined in 1200-14-4.

C. Roles and Responsibilities

The Commissioner of Health, or his designee, is responsible for determining when to initiate and lift social distancing measures. These decisions will be based upon the recommendations of the State Epidemiologist, using the best available epidemiologic information on pandemic disease severity and spread. The regional health officer is responsible for implementing and lifting mandatory interventions when informed that state criteria for implementation or discontinuance have been met.

V. Social Distancing

A. Situation and Assumptions

In the absence of an effective and/or ample vaccine or treatment modality, the most effective means of slowing the spread of disease are strategies known collectively as "social distancing."

In the 1918 influenza pandemic, communities around the world practiced social distancing strategies by suspending discretionary public gatherings when pandemic influenza was spreading in their area. Policies varied, but included closing bars/restaurants, pool halls, theaters, sporting events, public transportation, schools and suspending congregate services in houses of worship.

When there is an anticipated delay and/or lack of ample vaccines or treatment for a disease, then social distancing measures may again play a role in minimizing illness and deaths in Tennessee. State-imposed measures will affect discretionary public gatherings and schools (pre K-12).

VI. Voluntary Quarantine or Isolation

The first, and usually only, step is to ask affected persons to comply with requests of the health department. In the experience of countries affected by severe acute respiratory syndrome (SARS) in 2003, the vast majority of affected persons did comply voluntarily.

If time permits, a letter explaining the requested action on health department letterhead facilitates voluntary actions. This letter may assist the person in explaining their needs with employers or school and provides a written record of the actions they are expected to take.

The person should be given:

1) written material about infection control and symptoms
2) instructions in the proper steps to prevent exposing others
3) surgical masks, if resources permit
4) a contact phone number for the health department
5) instructions for what to do and where to go in case they need medical attention
6) post-exposure prophylaxis may be provided, along with instructions for use

VII. Health Directive

A. Definition

A public health directive is issued by a local or regional health officer but does not require a court order. It is a written statement of evidence that the person may be a health threat and a statement of actions the health officer is directing the individual to take to cooperate with public health authorities.

B. Step One (Voluntary Compliance)

When an event or incident occurs that the Commissioner of Health or the health officer reasonably believes, based upon clinical or epidemiological evidence of the kind relied upon by competent medical experts, a person is a health threat to others, then the health officer shall exhaust all resources and avenues available to get voluntary compliance of an infected person(s) and/or contact(s). The voluntary compliance may include verbal instructions and/or a health directive. A health directive shall be a written statement, or in compelling circumstances, an oral statement which shall be followed within three (3) days by a written statement in accordance with Chapter 1200-14-4 of The Rules and Regulations of the Department of Health for the State of Tennessee, entitled “Communicable Disease Control Health Threat Procedures.” The purpose of the health directive is to direct a person to cooperate with health authorities’ efforts to prevent or control the transmission of a communicable disease. A health directive must be issued to an individual (not a group). A health directive may include, but is not limited to, participation in education and counseling, medical tests and examinations, participation in treatment programs and isolation or quarantine.

When a health directive is issued, a copy of Tennessee Rules and Regulations, Chapter 1200-14-4, (which outlines communicable disease control health threat procedures) should be attached, and both should be provided to the individual. When a health directive is issued, the affected person has the right to request a review of the decision by the State Chief Medical Officer or his/her designee. The reviewing official must notify the person in writing of the review decision within 5 business days of receipt of the request. The affected person can also ask that the conditions of the directive be given in the form of a court-ordered public health measure, but the health directive is in force during the time it takes to get the court order. A court-ordered public health measure may be sought against a person who does not or cannot comply with a health directive for any reason.

It is not necessary to issue a health directive first if a court-ordered public health measure or temporary hold order is required. However, if a health measure is sought, a health directive should be issued at the time a petition is filed with the court.

VIII. Court-Ordered Public Health Measure (Permanent Commitment)

A. Definition

A public health measure is sought by a health officer to require actions of a person who is considered a public health threat; it is signed by a General Sessions judge following a hearing. Failure to comply with instructions in a court-ordered public health measure is considered contempt of court.

B. Step One

The health officer will prepare and issue a health directive.

1) The health officer shall notify the Assistant Commissioner of Health and the Medical Director of Communicable Diseases for the Tennessee Department of Health, or their designee, that an Affidavit and Petition for Order for a Public Health Measure and any other necessary documents are being filed.

2) The health officer will then inform the County Attorney in writing on the designated form of a need to invoke health threat prevention measures. This information will include the following specifics:

a) The individual(s) against whom the legal action is requested, their date of birth, social security number, and known location

b) The nature of the suspected infection, illness or public health threat

c) Why reasonable cause exists to believe that there is a substantial likelihood that the person poses an imminent threat to others

d) The type of relief sought (education, testing, examination, treatment, isolation or quarantine or prevention or restriction of access to premises

3) If deemed medically necessary, the health officer or his/her physician designee (as represented by the County Attorney's Office) shall prepare for filing with the Clerk of the General Sessions Court a Petition for Order for a Public Health Measure. Note: The Petition for Order for a Public Health Measure may also be filed at the same time the Petition for Order for Temporary Hold is filed. Said Petition for Order for a Public Health Measure shall include:

a) A statement that there is a substantial likelihood that the person(s) poses a health threat to others; An affidavit must include the specific facts of why the order is needed, including clear and convincing evidence that the person is substantially likely to be a health threat to others.

b) That the medical tests conducted during the period of temporary hold verify the carrier status or infectiousness of the person(s) or that the person was in contact with an infectious disease or public health threat

c) That the recommended education, testing, examination, treatment, and isolation or quarantine is the medically accepted method of treatment is necessary, and the recommended duration of such;

d) A prayer that the person(s) be ordered to cease and desist any actions that will be a health threat to others

e) A prayer seeking commitment to the Tennessee Department of Health's Commissioner of Health for placement and/or treatment for a medically accepted course of curative treatment

f) A prayer for a hearing no earlier than five (5) days, but no more than fourteen (14) days (excluding Saturdays, Sundays, and legal holidays) of the filing of the Petition

g) A notice that the person(s) has a right to be represented by an attorney which shall be appointed by the Court in the event the individual is not able to hire their own attorney

h) A notice that the person(s) has a right to be examined, at the place of confinement, by their own physician at their own expense

i) A notice that either party adversely affected by the ruling of the Court shall have a right to appeal to the Circuit Court of the County, and that the ruling of the General Sessions Court shall remain in effect during, and until, a ruling of the Circuit Court

j) A statement of the medical precautions recommended to be taken by the Sheriff's Department, medical staff, involved attorney(s), and court personnel while apprehending, transporting, guarding, treating, representing, and otherwise being exposed to the infected person(s)

k) A notice advising the person(s) that their failure to cooperate with the Order as issued by the Court and/or their escape from quarantine shall result in their arrest and confinement for committing a Class B Misdemeanor (as authorized by Tennessee Code Annotated Sections 68-1-203 and 68-5-104(b))

l) A prayer that said Affidavit and Order shall be confidential and may not be disclosed to the general public.

When a public health measure is issued, a copy must be provided to the individual, along with a copy of the Tennessee Department of Health Rules (1200-14-4).

C. Step Two (Waiver)

If the person(s), after consultation with the health officer or his/her physician designee, their attorney, and/or their personal physician agrees to cooperate with the Public Health Measure as prescribed by the health officer, they shall evidence said agreement by executing a Waiver Of Hearing And Agreement To Committal, and

said Waiver shall be notarized and filed by the Hamilton County Attorney with the General Sessions Court of the County.

D. Step Three (Hearing On Commitment)

In the event the person(s) does not waive the hearing and does not agree to the Committal of Treatment as prescribed by the health officer, then said Petition for Order for a Public Health Measure and a subpoena duces tecum to obtain a certified copy of the person's medical records, if required, shall be filed by the Hamilton County Attorney with the General Sessions Court.

NOTE: The Petition for Order for a Public Health Measure may also be filed at the same time the Petition for Order for Temporary Hold is filed.

The subpoena duces tecum shall be directed to any health care provider having in their custody the medical records of the person(s), directing them to immediately surrender said certified records to the Clerk of the General Sessions Court, and shall be delivered or surrendered prior to the designated hearing date.

A copy of said Public Health Measure (with appropriate legal authority attached) and subpoena shall be delivered to the person(s) by the civil process server or his/her designee.

The hearing on the Public Health Measure shall be held in the General Sessions Court or such other appropriate place as the judge shall designate (as advised by the health officer), with the exercising of appropriate medical precautions for the health and safety of those persons involved in said hearing and/or exposure of the infected person(s).

The hearing shall be conducted in conformance with the Tennessee Rules of Evidence.

If upon the evidence submitted at the hearing the judge concurs that there is a substantial likelihood that the person(s) poses a health threat to others, by clear and convincing evidence, then the judge shall approve the Petition for Order for a Public Health Measure and issue an Order of Commitment of the person(s) to the Tennessee Department of Health. At the time a ruling is made by the judge, a copy of the Order will be given to the person, the medical detention facility, and the health officer.

If there is no clear and convincing evidence that the person(s) poses a health threat to others, then said person(s) shall be immediately released, and shall likewise be given a copy of said ruling.

E. Step Four (Escape From Quarantine)

When the Order of Commitment is filed, the County Attorney will request that in the event of escape from quarantine, the Judge shall authorize any and all local law enforcement personnel to seek and arrest the person(s) and return him/her to the

medical detention facility before the warrant is sworn, if necessary, and that an appropriate bond be set by the judge.

Any and all criminal prosecutions for violations of the Protocol of Quarantine shall be conducted by the District Attorney General's Office for the County.

The health officer or his/her designee will be notified of the escape and will then notify the Hamilton County Sheriff's Department Dispatch Officer in Charge at (423) 209-7100 and/or the Chattanooga Police Department's Dispatch Officer in Charge at (423) 698-2525. The person's name will be flagged (while maintaining confidentiality). The health officer will inform law enforcement of any recommended medical precautions.

The Hamilton County Attorney's office will prepare the Affidavit of Complaint in the Hamilton County Criminal Court.

IX. Temporary Hold in an Emergency Situation (Initial Involuntary Compliance)

A. Definition

A temporary order sought by a health officer and issued by a General Sessions judge with an ex parte hearing (a hearing in which only the petitioner is heard), requiring actions of a person considered to be a public health threat. These are usually sought in emergency situations while going through the process of obtaining a court-ordered public health measure.

B. Step One (Initial Involuntary Compliance)

In the event the health officer is unable to reach a successful conclusion through the cooperation of the individual(s) or if the person is unable, unwilling or fails to comply with a health directive, this shall be grounds for proceeding with legal health threat prevention measures (legal action).

The health officer will prepare and issue a health directive.

1) The health officer shall notify the Assistant Commissioner of Health, and the Medical Director of Communicable Diseases for the Tennessee Department of Health, or their designee, that an Affidavit and Petition for Order for a Temporary Hold, and any other necessary documents are being filed.

2) The health officer will then inform the County Attorney in writing on the designated form of a need to invoke health threat prevention measures. This information will include the following specifics:

a) The individual(s) against whom the legal action is requested, their date of birth, social security number, and known location

b) The nature of the suspected infection, illness or public health threat

c) Why reasonable cause exists to believe that there is a substantial likelihood that the person poses an imminent threat to others

d) The type of relief sought (education, testing, examination, treatment, isolation or quarantine or prevention or restriction of access to premises.

C. Step Two (Document Preparation)

The County Attorney will then prepare and file with the Clerk of the General Sessions Court:

1) The signed and sworn to Affidavit as prepared by the health officer or his/her designated physician representative

2) A Petition for Order For A Temporary Hold In Emergency Situations

3) The Emergency Order

Within five (5) days thereafter shall prepare:

1) Petition for Order for a Public Health Measure

2) Subpoena Duces Tecum to obtain a certified copy of the person's medical records, if applicable

3) Order of Commitment

The Petition for Order for Temporary Hold in Emergency Situation shall be attached to the Affidavit of the health officer or his/her designee, and shall include:

1) Identification of the person (by name, date of birth, and social security number)

2) The reason for the medical emergency for which immediate confinement is needed

3) The refusal of the person(s) to cooperate or comply with the Health Directive

4) The known geographical areas (address, community, etc.) of the person

5) A request for an order allowing the civil arrest and transporting to a designated facility (medical or otherwise) for the education, testing, examination, taking of body fluids, confinement (of no more than 5 business days), or treatment of the person(s)

6) A statement that there is a substantial likelihood that the person(s) has been exposed and/or poses a health threat to others

7) A request for a closed hearing within five (5) business days as to the necessity of continuing the Temporary Hold of the person(s) beyond said initial five (5) day period. Under no circumstances shall a Temporary Hold be extended beyond ten (10) business days. The person(s) may actively participate in said hearing by cross-examining the witnesses and subpoenaing persons to testify on their behalf

8) A notice that the person(s) has a right to be represented by an attorney which shall be appointed by the Court in the event the individual is not able to hire their own attorney

9) A notice that the person(s) has a right to be examined, at the place of confinement, by their own physician at their own expense

10) A notice that either party adversely affected by the ruling of the General Sessions Court shall have a right to appeal to the Circuit Court of the County. The decision of the General Sessions Court shall remain in effect during, and until, a de novo hearing by the Circuit Court

11) The medical precautions recommended to be taken by the Sheriff's Department, medical staff, attorney(s) involved, and court personnel while apprehending, transporting, guarding, treating, representing, and otherwise being exposed to the person(s)

12) A notice advising the person(s) that their failure to cooperate with the Order as issued by the Court shall result in their arrest and confinement as a Class B Misdemeanor (as authorized by Tennessee Code Annotated Sections 68-1-203 and 68-5-104(b))

13) A request that said Affidavit and Order shall be confidential and may not be disclosed to the general public;

When a temporary hold is issued, a copy of the Order must be provided to the individual, along with a copy of the TDH Rules 1200-14-4.

D. Step Three (Clerk and Issuance of Documents)

All logs, filings, and other records of proceedings under these measures shall be maintained separate and apart from all other matters maintained by the Clerk of the Court, and shall be kept with the strictest of confidence and not be available for public inspection, unless the Court directs that disclosure is necessary for the conduct of the proceedings before it, and that failure to make such disclosure would be contrary to the public interest or detrimental to either party.

Upon the filing of the Affidavit, Petition, and Order, the Clerk of the General Sessions Court will then immediately present the same to a Judge of the Court. If deemed appropriate, the Judge will sign the Order; set a place and manner for the hearing as requested; appoint the person's attorney for judicial hospitalization (if necessary) from a list kept by the Clerk of the General Sessions Court and direct the Sheriff to immediately find the person(s) and deliver them to the designated facility (medical or otherwise), and maintain appropriate personnel to insure the person's remaining at the facility. The Clerk of the General Sessions Court will log the Order and supporting documents, including the Order Summoning An Appearance for Hearing, the Emergency Order, and forward these documents on to the Sheriff for execution by a process server.

E. Step Four (Sheriff's Duties)

Upon receipt of the Order from the Clerk, the Sheriff shall immediately dispatch an appropriate number of officers to find, detain, and transport the person(s) to the designated facility (medical or otherwise). At the time process is served on the

person(s), the process server shall fill in the day and time of the hearing (no more than five (5) business days after service on the person).

The Sheriff shall also insure the continued confinement of the person(s) at the designated facility until the date of the hearing. Copies of the Order will be given by the civil process server to: (1) the person(s) at the time of their apprehension ;(2) the designated facility; and (3) the health officer within twenty four (24) hours of service of the papers on the person(s). The process server will then complete the Service Information Form. The Sheriff's Department shall at the appropriate time transport the person to the hearing and remain in attendance at the hearing.

F. Step Five (Post-Service Procedures)

The original Order shall be returned to the Clerk by the process server within twenty four (24) hours of service upon the person. It shall designate the date, time, and place of apprehension and confinement of the person(s). The Clerk shall immediately forward a copy of the Order, as returned by the process server, to the Office of the County Attorney.

The County Attorney shall insure that a court reporter is scheduled to appear at the scheduled hearing to transcribe the proceeding thereof.

Upon the service of a subpoena duces tecum to a health care provider, the recipient shall expedite the release of all medical records within their control. Any health care provider may be subpoenaed to produce at the hearing medical records on any person(s), and/or associated contacts. Said records may be filed under seal with the court prior to the hearing, if not delivered at the time of the hearing.

Any medical detention facility shall assure: (1) access of the person(s) to his/her attorney; (2) that the Sheriff is able to serve the civil process; (3) that a guard is able to be there, if indicated; and (4) that the Health Department and the facility's security department are notified if the person is noncompliant and/or is a threat to, or actually does, escape.

G. Step Six (Initial Hearing)

The hearing on the Temporary Hold shall be held in the General Sessions Court or such other appropriate place as the judge shall designate (as advised by the health officer), with the exercising of appropriate medical precautions for the health and safety of those persons involved in said hearing and/or exposure to the infected person(s).

The hearing shall be conducted in conformance with the Tennessee Rules of Evidence.

If upon the evidence submitted at the hearing the judge concurs that there is a substantial likelihood that the person(s) poses a health threat to others, by clear and convincing evidence, then the judge shall approve the Petition for Order for a Temporary Emergency Hold of the person(s) to the Tennessee Department of Health.

At the time a ruling is made by the Judge, a copy of the Order will be delivered to the person(s), the medical detention facility, and the health officer.

If there is no clear and convincing evidence that the person(s) poses a health threat to others, then said person(s) shall be immediately released, and shall likewise be given a copy of said ruling.

The health department will coordinate with the Sheriff's Department for security for the person during the Temporary Emergency Hold and Commitment. The local health department, with assistance from the Tennessee Department of Health, may also contract with a private security company.

Supplement 2 - Pre-Pandemic Case Management

I. Purpose

To use individual case management, including legal isolation or quarantine orders and contact tracing, during the pre-pandemic period (World Health Organization [WHO] Phases 3-5) to prevent the spread of an influenza virus with pandemic potential in Hamilton County.

II. Definition

Community transmission: transmission without clear epidemiologic links among cases.

III. Assumptions

Individual case management to prevent or slow spread of a virus with pandemic potential will be used before community transmission begins in the United States

Suspected cases of infection with a novel influenza virus with pandemic potential in Hamilton County are likely to be:

1) Travelers identified during, or only days after, their travel to an affected area

2) Persons exposed to animals infected with a novel influenza virus capable of causing human disease

3) Initial reports of suspected cases will come from both medical and non-medical persons

Once community transmission of a pandemic virus in the United States is under way, individual case management and contact tracing will be rendered inefficient and ineffective at controlling disease spread because of the rapidly increasing number of cases and speed of spread

After community transmission begins, the emphasis will shift to generally-applied social distancing strategies (see Section 7 [Community Interventions])

IV. Objectives

1) To minimize the number of people who have unprotected exposure to a person with a novel influenza virus with pandemic potential in order to prevent community transmission from beginning

2) To impose the least restrictive measures necessary to protect the public's health. To use the Outbreak Management System (OMS) or other database program for efficient and effective data management for case and contact investigations

V. Sources for Recommendations and Case Definitions

Hamilton County will follow state and national standard case definitions and recommendations for control measures provided by the state and the Centers for Disease Control and Prevention (CDC). Case definitions and recommendations will be posted on the

state pandemic website. If multiple case definitions are in use nationally, the Regional Health Officer and the State Epidemiologist or his designee will communicate the case definition and interventions to be used in Hamilton County. Interventions for individual cases will be tailored to the specific situation.

VI. Individual Case Management (WHO Phase 3-5, Pandemic Alert)

Individuals suspected of meeting the case definition published by the Department of Health should be reported by telephone immediately to the Chattanooga-Hamilton County Health Department Epidemiology Department at (423) 209-8190 or to the Tennessee Communicable and Environmental Disease Services Section (CEDS) at 615-741-7247 (toll-free 1-800-404-3006). The report will be evaluated by the Health Officer and CEDS physician who will provide guidance for testing and contact management. Case report forms for CEDS and/or CDC will be completed by CHCHD staff or the reporting healthcare provider and submitted to CEDS immediately, if indicated.

Recommendations for protecting others from suspected cases will be published through news outlets, the internet, and publications of the CHCHD and the TDH.

A. Case Management for Suspect Cases on an Airplane (adapt to other transit)

When persons fitting the case definition are reported on an airplane arriving in Hamilton County, this may be managed in collaboration with the state and the nearest CDC Quarantine Station, identified by contacting the CDC Director's Emergency Operations Center at 770-488-7100. CDC has the legal authority to impose quarantine orders on travelers potentially exposed to novel influenza viruses under certain conditions. The terms of federal quarantine are currently being revised and proposed rules have not taken effect at this writing; federal quarantine protocols will be attached to this section and disseminated to local and state response planners once finalized. The CHCHD will follow Chattanooga Metropolitan Airport's protocol for responding to potentially infectious passengers. If contacts are not local residents or cannot be housed at their home, CHCHD officials are responsible for housing contacts requiring quarantine until they can be released. More detail can be found in CHCHD's Quarantine Plan.

General steps are as follows:

1) The suspect patient will be isolated from others to prevent disease transmission and provided a surgical mask to wear and medical evaluation by the CHCHD or a designated healthcare facility.

2) Other contacts will be quarantined and contact information collected pending evaluation of the suspect patient and laboratory testing, if necessary.

3) The CHCHD's PHIT (Public Health Investigation Team), with the assistance of other staff members (as needed) of state health officials, will meet the plane and clinically evaluate passengers according to protocols developed by the CDC.

4) Emergency public health measures to confine quarantined persons or compel testing will be prepared against uncooperative individuals in accordance with state regulations (1200-14-4) with the assistance of a public

health attorney, and under the authority of the Health Officer or the Commissioner, only if the suspect case or contacts are unwilling to cooperate with the instructions of public health officials.

5) Clinical samples from the suspect case will be obtained by the PHIT and taken to the nearest public health laboratory capable of conducting rapid testing for the virus. At this writing, specimens must be taken to the state public health laboratory in Nashville for preliminary testing using polymerase chain reaction (PCR), with results available in hours (see Section 3 and its Attachment A for details).

6) Until quarantined contacts are cleared to leave, CHCHD officials are responsible for their personal needs (communication, shelter, food, psychosocial support). Stranded travelers no longer under quarantine will be provided with the CHCHD's Resource List for assistance with lodging and food (Section 9).

7) Quarantined contacts should be assessed by CHCHD for symptoms of illness at least every 12 hours and provided information about symptoms and how to report them as soon as they develop. If no adequate means of communication is available, the CHCHD will provide quarantined contacts with prepaid cell phones designated for reporting symptoms.

8) Irrespective of preliminary laboratory results, names and contact information of all contacts will be collected by CHCHD before quarantined contacts are discharged (in the event that confirmatory testing is positive).

9) If the patient is confirmed to have the novel influenza virus, quarantine of contacts and post-exposure prophylaxis will be provided as recommended by the Regional Health Officer and the State Epidemiologist, or his designee, in collaboration with the CDC.

10) State public health officials in CEDS will be responsible for ensuring information on contacts identified in other states is communicated to the state health department authorities in those states.

11) Case management data will be collected in OMS or other database program, available for field deployment on laptop computers.

B. Case Management for Suspect Cases not Currently in Transit

Persons fitting the case definition should be reported to the CHCHD Epidemiology Department or to CEDS immediately.

1) Suspect case patients should be isolated using current accepted precautions (e.g., droplet plus contact precautions in a hospital) or at home until: (1) the person is excluded as a case, or is fully recovered.

2) If the patient is being referred by CHCHD to a treatment facility for evaluation, the CHCHD is responsible for communicating with the receiving medical facility in advance to prevent inadvertent unprotected exposures.

3) Clinical laboratory specimens should be obtained by CHCHD and delivered as quickly as possible to the State Public Health Laboratory in Nashville. See Section 3 for laboratory specimen information. Courier service may be arranged with the State Laboratory, if needed.

4) The CHCHD with the assistance of state public health personnel will conduct rapid contact tracing to identify and evaluate close contacts for evidence of disease. Because of the short incubation period, contact tracing should not be delayed for laboratory confirmation in cases where the patient meets the clinical/epidemiologic case definition.

5) CHCHD clinical staff should have daily contact with a designated point of contact at the treating facility for any confirmed cases to monitor clinical outcome and appropriate isolation procedures.

6) Contacts should be quarantined at home or in an alternate facility (e.g., hotel). Quarantined contacts should be assessed for symptoms of illness in person or by phone by a qualified CHCHD staff person at least every 12 hours and provided with information about symptoms, how to report them as soon as they develop, and how to protect household contacts from exposure. If no adequate means of communication is available, the CHCHD will provide quarantined contacts with prepaid cell phones designated for reporting symptoms. CHCHD will provide housing and food. Post-exposure prophylaxis or early treatment with an appropriate antiviral medication will be initiated as indicated by the Regional Health Officer and State Epidemiologist or a designee.

7) Case and contact management data will be collected using OMS or another database program. Details provided by the state in a separate OMS guidance.

8) Persons who are quarantined because of exposure to a confirmed case will remain quarantined until the incubation period has lapsed or will be offered post-exposure prophylaxis according to standard recommendations at the time as approved by the Regional Health Officer and State Epidemiologist or his designee.

9) Non-hospitalized patients should be clinically monitored in person or by phone daily by a CHCHD nurse or physician to assess symptoms, ensure compliance with isolation instructions, and facilitate safe evaluation by medical personnel when necessary.

10) Patients or contacts unwilling to cooperate with necessary public health instructions for isolation, quarantine, or medical testing may be issued written health directives or temporary emergency hold orders by the Regional Health Officer, prepared with the assistance of a Hamilton County attorney, to compel their immediate compliance, in accordance with state public health regulations (Rules and Regulations 1200-14-4).

11) Daily follow-up should be documented by public health in the OMS system or other database.

C. Information Management

1) Information on all cases and contacts will be managed using OMS or other database system.

2) Specimens approved for laboratory testing at the State Public Health Laboratory should be documented in OMS before testing.

3) Laboratory results for specimens submitted will be entered into OMS or other database by state public health laboratory staff.

VII. Contact Management (WHO Phases 3-5)

A. Objectives

1) To identify and treat contacts of cases

2) To identify previously unrecognized cases resulting from the index case

3) To educate contacts about health monitoring, post-exposure prophylaxis, protecting their families, and when to seek care

B. Key Points

1) Interviews to identify contacts should be conducted as soon as the probable diagnosis is made.

2) Interviews of contacts of probable cases meeting the epidemiologic and clinical criteria should not be delayed for laboratory confirmation.

3) CEDS personnel will provide assistance as needed.

4) If the patient cannot be interviewed, household and other contacts should be interviewed.

5) Where the source of the case's infection is known, the time period of interest is from the date of onset of symptoms. Because patients may shed virus before the onset of symptoms, interviewers should elicit close contacts and activities starting 24 hours before the reported onset of illness.

6) If the source of the case's infection is not known, the investigator also must elicit events attended and any ill contacts in the ten days prior to the onset of symptoms (2 weeks may be used for simplicity of recall).

7) Contacts may be stratified as High, Medium, or Low Risk in order to guide the prioritization of follow-up for these contacts. Examples of people in each broad category:

a) **High Risk**: Healthcare workers with unprotected exposure to the patient, especially during an aerosol-generating procedure; unprotected caregivers of the patient; household contacts.

b) **Moderate Risk**: Close contacts that do not meet high risk criteria, but spent at least some unprotected time within 6 feet of the patient or in unprotected contact with contaminated environment.

c) **Low Risk**: People who do not meet moderate risk criteria but who had some lesser degree of contact with the patient.

8) All individually identified contacts, especially those at high and medium risk, should be traced, notified of their exposure and given instructions for symptom monitoring, follow-up, and post-exposure prophylaxis, if indicated (e.g., high-moderate risk).

9) Public announcements may be necessary to alert previously unidentified contacts and inform them how to identify themselves and report symptoms.

10) Antiviral medications will be obtained from state or federal stockpiles through the SNS system according to federally-established protocols.

C. Instruction for Contacts

1) Take antiviral medication as instructed, if provided by the CHCHD or TDH.

2) Take their temperature and document it if they feel febrile.

3) Be vigilant for early signs of illness (fever, myalgia, headache, cough, runny nose, and diarrhea).

4) At the first sign of illness, to isolate themselves from other people, put on a surgical mask, and call a number provided by the CHCHD for clinical assistance.

5) If ill, wear a surgical mask when going out of the house to seek medical attention. If resources permit, contacts will be provided with surgical masks by the CHCHD.

6) Alert healthcare providers in advance of their arrival for medical evaluation and at the time of arrival that the person has been exposed to a novel influenza virus.

7) Close contacts of asymptomatic persons are not restricted in their activities.

8) Contacts will be notified by CHCHD either verbally or in writing when the period of quarantine ends.

D. Legal Measures

See Section 7, Supplement 1, Legal Authority, for details on legal measures that may be imposed by the Local Health Officer upon uncooperative isolated or quarantined individuals, including:

1) Health Directive (signed by the Health Officer)

2) Temporary Emergency Hold (signed by judge with only an ex parte hearing – only the health officer petition is heard)

3) Court-Ordered Public Health Measure (signed by judge after a hearing)

VII. Home Isolation: Pre-pandemic

If a patient, still considered infectious, is to be isolated at home, instead of in a hospital, the following steps should be taken:

A. Confirm the suitability of home environment for safe isolation of patient

This may be done by the discharge planner for the patient being released from the hospital in consultation with the CHCHD. If there is a question about the suitability of the home for isolation, a home visit by a public health social worker or designated public health monitor may be necessary.

1) The home should have:

a) Telephone, electricity, running water, and

b) Another adult to act as the primary caregiver

2) Household members other than the caregiver should be advised to live elsewhere for the duration of isolation, if feasible. If not, these household members should have minimal contact with the isolated patient. Household contacts at high risk of complications, if infected, should not have contact with the patient or the patient's environment.

3) If health department or hospital personnel believe the patient to be unable or unwilling to be isolated safely at home, then alternative housing should be used or the patient should remain in the hospital for the duration of isolation.

B. CHCHD should provide clear written instructions and educational materials.

The following materials should be provided:

1) Written instructions specific to this patient: date isolation ends, phone number for a health department contact person, when they will be contacted by the health department, and what to do in case of acute medical care needs. If provided on health department letterhead with the patient's name written in, this information could be used as verification to employers or aid organizations.

2) Contact list of regional or local volunteer resources for social support (food, child care, emotional and spiritual needs, emergency financial needs). See Section 9.

3) Instructions on how to prevent the spread of illness to others (hand hygiene, surgical mask use). If resources permit, they should be provided with surgical masks by the CHCHD.

4) Instructions to the household contacts on monitoring themselves for symptoms and instructions to wear a surgical mask and call the health department as soon as they develop symptoms.

5) If a health directive or other legal public health measure is issued, a copy must be provided along with a copy of the TDH Rules 1200-14-4.

C. Guidelines for infection control in the home

1) Masks

a) All persons in contact with (in the same room as) a patient should wear a surgical mask. If the patient is unable to purchase surgical mask, the CHCHD will provide surgical masks for the patient and household contacts.

b) The patient should wear a surgical mask when in contact with uninfected people, if feasible, and any time they have to go outside the home.

c) Any time the patient needs to go to a doctor's office or to a hospital, the patient and caregiver should wear a surgical mask and should alert the facility that they are coming so that the patient does not wait in a public waiting area.

2) Hand hygiene

a) Hand hygiene can be defined as thorough hand washing with soap and water or the use of an alcohol-based hand sanitizer when hands are not visibly soiled.

b) Patients should wash their hands frequently, especially after coughing and sneezing or using the restroom.

c) Caregivers and contacts of patients should wash their hands before and immediately after any contact with the patient or their belongings or body fluids, whether or not gloves are worn.

3) Environment

a) Household waste, such as facial tissues and surgical masks, can be thrown away as normal garbage.

b) Laundry can be cleaned safely in a washing machine using normal detergent.

c) Cleaning of household items or surfaces that the patient has touched can be achieved by wiping surfaces down with any EPA-registered disinfectant (see label), according to manufacturer's instructions, or with a dilute bleach solution (a quarter cup of household bleach in a gallon of water). Examples of EPA-registered disinfectants include: Vani-Sol™, Scrubbing Bubbles™, Tilex™ Instant Mildew or Soap Scum Removers, Lysol Disinfectant™. Obtaining these cleaning products if they are not already in the home is the responsibility of the caregiver. If resources permit, cleaning products may be provided by CHCHD.

D. Monitoring of Household Contacts and Caregiver

At the earliest sign of illness, they should contact the CHCHD through the phone number provided. Antiviral medication should be used as directed.

VIII. Quarantine

A. Three Types of Quarantine

1) Home quarantine where basic needs can be met and where household contacts can be protected if the person develops symptoms.

2) Quarantine in designated facility may be arranged by the regional health department when home quarantine is not possible.

3) Work quarantine for healthcare or other essential personnel who work while wearing surgical masks and gloves and using proper infection control precautions, but are quarantined at home or in a designated facility when not working. If symptoms develop, they stop working and are isolated.

Note: There are no restrictions on the activities of asymptomatic household contacts of quarantined individuals.

B. Steps of Enacting Home Quarantine

1) Decide if home quarantine is appropriate. A home visit by a public health monitor may be necessary to determine if

a) The home has basic utilities, including a telephone (the CHCHD will provide prepaid cell phones if necessary) and

b) The quarantined person can minimize contact with other household members and contact emergency services if the person becomes ill.

c) There is a means of getting food and medications.

2) Contact regimen

In addition to providing the patient contact information for the health department, health department personnel should contact the patient once daily, at minimum, to evaluate for symptoms and record findings in OMS.

3) Provide written materials

a) Patient-appropriate materials on influenza and the date quarantine ends.

b) Information on taking antiviral medication, if provided.

c) Contact information for health department and for medical services if symptoms develop.

d) Written information about social support resources in the community (Attachment A).

e) If a legal health directive, health measure or temporary hold is ordered, a written copy along with a copy of the TDH Rules 1200-14-.04 must be given.

f) Provide instructions on who to contact if the temperature is >100.4°F. In households where no thermometer is available, the CHCHD will provide one.

4) Instructions

a) Be vigilant for fever (temperature >100.4°F), muscle aches, malaise, or respiratory symptoms for prescribed number of days following exposure.

b) Immediately begin wearing a surgical mask, practice good hand hygiene, and contact the health department if fever or respiratory symptoms develop.

c) Before going to a healthcare facility, ensure that the medical care provider knows that they may have been exposed to a novel influenza virus to prevent unprotected exposure to the patient at the facility. (If the person calls their CHCHD contact, this public health official should contact the receiving medical facility, instead of the patient).

5) Give instructions to household members:

a) Household members can continue routine activities with no special precautions.

b) The health department will provide additional instructions to these household members if the quarantined person develops symptoms.

IX. Alternative Housing

The CHCHD will designate facilities in which infectious persons could be **isolated** until they are non-infectious (i.e. "patients") or **quarantined** for the prescribed number of days after exposure (i.e. "contacts"). Staffing, food and communications needs must be arranged for by the CHCHD. The CHCHD will provide a prepaid cell phone, if necessary. Such arrangements may be necessary for the following groups of persons:

1) Homeless or indigent persons
2) Travelers without a local residence
3) Persons whose homes are inadequate for safe isolation or quarantine (e.g. a dormitory, a home without a separate bedroom for the patient, etc.)

CHCHD TB staff will assist in the isolation or quarantine of pan flu patients. The CHCHD should keep the identity of persons housed confidential. The facility operator should be informed of any steps necessary to protect the facility staff; the health department should keep confidential the details of the reasons for quarantine or isolation.

A. Patient Isolation Facilities Outside Homes or Hospitals

Identified alternative housing facilities should have the following characteristics:

1) Separate rooms for patients
2) Functioning telephone, electricity, and potable water
3) A separate bedroom for the patient, if a caregiver is staying with the patient. The bedroom should have a floor-to-ceiling wall with a door that remains closed at all times.
4) A separate bathroom designated for the patient
5) The ability to control access to the facility and to each room (i.e. fencing around the facility with limited access to outside parking, locking exterior doors, or the ability to post a security guard)
6) Areas that can be designated for patient evaluation, treatment, and monitoring
7) Rooms and corridors that can be disinfected
8) Facilities for accommodating staff (i.e. lounge, break room, living quarters)
9) Bagged garbage cans and regular garbage pick-up for disposal of waste
10) Facilities for collecting and laundering linens and clothing
11) Easy access for delivery of patients and supplies
12) Availability of food services and supplies

B. Quarantine Facilities Outside Homes or Hospitals

Facilities for quarantine have been identified near the Chattanooga Metropolitan Airport in the event that a symptomatic traveler is detected and contacts must be housed during the investigation. Such a facility may be required for other persons who cannot be quarantined at home or homeless persons with high risk exposures to a confirmed or probable case.

The CHCHD will consider a local hotel/motel for a small number of people requiring housing, and will obtain the assistance of local agencies to provide temporary

shelters for larger groups if needed. Facilities should meet the same conditions as are outlined for home quarantine, and persons quarantined in these facilities should be provided the same materials given to those quarantined at home.

Supplement 3 - School and Child Care Facility Interventions

I. Purpose

Interventions in schools and child care facilities are designed to minimize transmission of pandemic influenza virus among children in crowded settings. This will help minimize morbidity and mortality among children and their household contacts.

II. Introduction and Assumptions

A. Influenza in Children

The Centers for Disease Control and Prevention (CDC) estimates that attack rates among school-aged children will be the highest of any age group (about 40%). Factors that contribute to this rate include children's immune system characteristics, hygiene practices, and prolonged close contact in congregate school settings. Ill children are generally more infectious than adults, shedding larger quantities of virus for a longer time, and will expose their household contacts to the virus. A pandemic influenza virus is expected to cause more deaths and severe illness than seasonal influenza among school-aged children; however, under current manufacturing conditions, vaccine and antiviral medications will not be widely available – prevention of exposure will be the primary means of protecting children's health.

Once a pandemic virus is confirmed present in the United States, spread throughout the country is expected to be inevitable and rapid, occurring in a matter of weeks. It also is possible that illness caused by the pandemic strain could occur sporadically for weeks before the beginning of the actual pandemic wave, as occurred in 1957 and 1968. For this reason, interventions to protect school children in Tennessee would be initiated in a stepwise fashion as soon as the virus is present in the United States.

B. Mandated Versus Recommended School Interventions

Procedures outlined in this plan reflect a worse-case scenario of a 1918-like pandemic (illness is fatal in about 1 in 50 affected persons). Decisions to implement all social distancing measures, such as school closure, will be reviewed and revised based upon the virulence of a particular wave and evidence of the effectiveness of disease control strategies.

C. Colleges and Universities

Colleges and universities are affected by state policies concerning non-essential public gatherings, but not by specific school closure requirements affecting preK-12 schools. College students are older and have less continuous group contact than school-aged children. Closing dormitories or suspending classes at a college or university would be considered on a case-by case basis. Colleges and universities are expected to develop campus plans and to collaborate with local/regional pandemic planning officials for community pandemic plans. Recommendations for college and university internal pandemic planning are available in Attachment A of this Supplement.

D. Licensed Child Care Facilities

The youngest children are the most likely to spread influenza once infected. They have higher viral loads than adults, are not capable of good hand hygiene and respiratory etiquette, and are infectious for longer than adults are. In addition, those under two years are more likely to suffer complications or require hospitalization if infected. If schools are closed by the Department of Health (TDH) (as opposed to closure by the local educational authorities), child care facilities licensed by the Department of Education and the Department of Human Services to care for 13 or more children also would be closed.

E. Routine Authority to Close Schools and Child Care Facilities

Nothing in this pandemic response plan is intended to interfere with the authority of local educational authorities (LEAs), private schools, colleges and child care facilities to choose to close for reasons other than meeting the criteria for public health-ordered closure. Routine reasons for closure, such as high absenteeism rates, may result in local school closure decisions by such authorities and do not require the involvement of public health officials.

III. Concept of Operations

A. Agency Responsibilities

The Commissioner of Health, or his designee, is responsible for determining when school interventions should be initiated and lifted based upon the State Epidemiologist's recommendations using the best available epidemiologic information on pandemic disease severity and spread.

The Commissioner of Education is responsible for implementing necessary interventions, up to and including closure of public schools in affected areas for the duration of the pandemic wave in those areas. If the TDH does not require school closure, the Local Educational Authority or a private school may still choose to close local schools for absenteeism or other reasons.

The Chattanooga-Hamilton County Health Department through its local Health Officer is responsible for assuring interventions are implemented at all schools at the local level. The Chattanooga-Hamilton County Health Department is also responsible for communicating information to the regions public and private schools.

The Hamilton County Department of Education and private schools are responsible for following all recommendations and or mandates of the Health Officer and state Department of Education up to and including suspension of events and school closure. These agencies are also responsible for communicating and educating children and their families.

B. Private versus Public Schools

Private schools will be subject to the same public health requirements as public schools, including school closure, non-essential gathering cancellation and hygiene recommendations.

C. Criteria for Closure

The Commissioner of Health, or his designee, will declare child care facilities and public and private schools in a county (pre-kindergarten through twelfth grades) closed, when advised by the State Epidemiologist that criteria for the closure of schools have been met. This will be implemented by Hamilton County's health officer.

The criteria for school closure by the TDH are:

1) The pandemic virus causes morbidity and mortality in excess of routine seasonal influenza, and

2) Laboratory confirmation of the pandemic virus in Hamilton County or a surrounding county, and

3) Epidemiologic evidence from a state surveillance system indicating community spread of the pandemic virus in the county or a surrounding county

D. Criteria for Re-opening

Schools and child care facilities will be reopened when state surveillance systems indicate that the pandemic wave has subsided (based upon sentinel provider and hospital surveillance).

IV. Summary of Protocol for Licensed Child Care Facilities (≥13 children)

Licensed child care facilities will be closed at the same time local schools are closed and re-opened when schools are open. Steps other than closure that may be strongly recommended or required include:

1) Providing hand hygiene supplies and tissues for children and staff

2) Providing hygiene education to children and staff

3) Strictly excluding from the facility all sick children until they have fully recovered (at least one week from symptom onset).

V. Summary of Protocol for Schools (public and private, preK-12)

Depending upon the severity and epidemiologic characteristics of the pandemic influenza virus, school interventions will begin as soon as the virus is present in the United States. Control measures will be consistent with the best available evidence of effectiveness at the time, and proportional to the risk (determined by the virulence of the virus) up to and including the following steps:

A. Stage 1

Domestic transmission of pandemic virus is identified in the United States by the CDC

1) Measures taken by TDH:

a) Commissioner of Health, or his designee, will activate this protocol

b) Communicable and Environmental Disease Services epidemiologists will begin daily tracking of school absenteeism data available through the Department of Education at the state level to monitor for unusual patterns of absenteeism.

2) Measures taken by the Chattanooga-Hamilton County Health Department:

a) Expand the tracking of daily school absenteeism data at additional schools.

b) Communicate with the schools in regards to the following:

i) information specific to the pandemic virus based on information from the CDC

ii) infection control information

iii) school, personal and family protections and response strategies

iv) address any misinformation/rumors etc.

v) criteria for school closure and next steps in controlling disease spread

vi) suggest sources of reliable additional information or educational materials

vii) Assist schools in developing a “Dear Parent” letter.

3) Measures taken by Department of Education, Hamilton County Department of Education and Private Schools:

a) In all schools, educate children and staff about good health habits necessary to help prevent illness, such as hand hygiene, respiratory etiquette and staying home when sick.

b) Prepare staff, parents and students for the next steps to prevent spread of disease among school systems, up to and including school closure for the duration of the pandemic waves in the community.

c) Strongly encourage parents to keep children with febrile illnesses home from school; encourage teachers and school administrators to separate children with febrile illnesses at school from others and send them home.

d) Suspend school attendance incentive programs that would encourage parents to send children to school despite illness.

e) Ensure all students and employees have access to hygiene materials and are encouraged to use them appropriately; materials should include toilet paper, facial tissues, soap and alcohol-based hand sanitizers.

B. Stage 2

Domestic transmission of pandemic virus in Tennessee is laboratory-confirmed in Hamilton County or a surrounding county by CDC or the TDH Laboratory

1) Measures taken by the TDH:

a) Monitor state surveillance data to determine criteria for local school closure have been met. Information will be shared between regional health departments and CEDS to assure that the public health need for school closure is quickly recognized and communicated.

b) Initiate canceling very large non-essential school gatherings (as defined in Section 7, Community Interventions), such as spectator attendance at school-based sporting events throughout the state, including both public and private pre-schools, preK-12 grades, and colleges and universities.

c) Close all schools. Once notified by TDH that the criteria have been met, closure will be communicated through Department of Education.

2) Measures to be taken by the Chattanooga-Hamilton County Health Department:

a) Continue school surveillance until schools are closed.

b) Continue to communicate the most recent information in regards to the virus and the control of disease spread.

c) The Health Officer shall communicate control measures and public health closure of facilities to all appropriate local public and private school officials in accordance with the plan.

3) Measures taken by the Department of Education, Hamilton County Department of Education:

a) Cancel all non-essential school gatherings and spectator attendance at sporting events for all schools in a county, preK-12. Schools may determine whether sporting events should continue without spectators or whether they should be canceled.

b) Continue Stage 1 interventions in counties where schools are open, including health education and hygiene supplies.

c) Prepare for imminent and prolonged school closure in other counties.

d) The Department of Education will communicate TDH school closure orders to affected Local Educational Authorities within each county via both telephone and fax.

C. Stage 3a

Pandemic wave ends in an affected county

1) Measures taken by the TDH:

a) The Commissioner or his designee will declare when all schools in a county (pre-kindergarten through twelfth grades) and child care facilities should be re-opened, when advised by the State

Epidemiologist that criteria for the re-opening of schools have been met (i.e., surveillance indicates the local pandemic wave has ended).

b) The Regional/Local Health Officer will be responsible for communicating this information publicly in the community to assure that child care facilities and private schools are aware of the re-opening.

2) Department of Education

a) Commissioner or a designee will implement the re-opening of schools as they are cleared to re-open by the TDH.

Stage 3b

Re-closure of schools in a county in the event of ILI among children after schools are re-opened

1) Measures taken by the TDH:

a) Upon notification by the Department of Education or other school or daycare that children are coming to school with ILI, local or regional health department officials will investigate the cause

b) If the cause is the pandemic influenza virus, schools in the county (and neighboring counties, if appropriate) may be re-closed by the TDH for one week. Surveillance data will be re-evaluated weekly to determine when to open schools.

2) Department of Education

a) Re-close school upon recommendation of the Commissioner of Health or his designee.

b) Re-open school upon recommendation of Commissioner of Health, or his designee.

c) Private or public school authorities and child care facility operators may choose to close under their own authority in the absence of a recommendation to close by the TDH.

D. Stage 4

Period between pandemic waves in Tennessee

Resume normal activities.

E. Stage 5

Subsequent pandemic waves:

1) Repeat stages of closure and re-opening, as needed, for successive pandemic waves.

2) The TDH will review and adjust recommendations for school closure, in light of the increasing or waning virulence of the strain and evidence of best practices for protecting health.

Supplement 4 – Regional Mortuary Services Plan

I. Purpose

To notify mortuary service providers of the extremely high casualty rates that may result from an influenza pandemic; and to involve all area providers, in conjunction with the County Medical Examiner's Office, in planning for the preparation, storage, and burial of victims during a pandemic episode.

II. Assumptions

Every mortuary service provider in Hamilton County will be impacted by a pandemic, be it moderate or severe. At the same time providers face a much higher demand for mortuary services, they will face the same challenges as other businesses during a pandemic and may not have adequate personnel available to deal with the higher demand. Challenges will include the following:

A. Cancellation or discouragement of funeral services of >100 persons, should the cancellation of non-essential public gatherings be declared during a local pandemic wave (see Section 7: Community Interventions)
B. A disruption in the normal supply chain due to illness and other challenges to the transportation of goods, which will hamper the availability of supplies necessary for preparing and storing bodies
C. In conjunction with disruption in the supply chain mentioned above, national and international demand for these supplies will be much higher than usual and costs may rise accordingly
D. The casualty rate can safely be assumed to be greater than the existing capacity in the area for medical examination, preparation, storage, and burial
E. Area residents may face economic hardship resulting from the pandemic and the cost of mortuary services may exceed the ability to pay in many instances

III. Operational Plan

Hamilton County owns a public cemetery that inters deceased persons for whom funeral arrangements are not possible. Current capacity for this site is 350 persons.

Section 8 Public Health Communications

I. Introduction

This plan outlines the policies and procedures for pre-event, event, and post-event coordination of communications for the Chattanooga-Hamilton County Health Department to successfully inform the public regarding the risks associated in the event of a pandemic influenza outbreak.

The coordination of communications will operate under the Chattanooga-Hamilton County Health Department's mission to protect the health and safety of the public in Hamilton County, Tennessee. An array of communication strategies will be used to respond to informational needs such as:

1) Pre-event information on pandemic influenza and county-wide preparation
2) Local health department staff notification and updates on pandemic status
3) Healthcare provider or emergency responder notification, updates, and recommendations
4) Public health and other involved government agencies notification and updates
5) Private citizen information on the status of the pandemic and treatment options
6) Members of the media updates and handling media requests
7) Quarantined persons requiring active monitoring for signs of disease
8) Community leaders requiring information to direct community response activities
9) Volunteers needing information on how to help.

This plan will also help incorporate professional and guiding principles needed to communicate during a crisis to the media, stakeholders, and the public with confidence and credibility.

The scope of this plan includes outlined operation procedures for pandemic influenza crisis communication within the Chattanooga-Hamilton County Health Department in Hamilton County, Tennessee.

II. Purpose

In larger context, the Chattanooga-Hamilton County Health Department Emergency Policies and Procedures Plan details roles and responsibilities for Health Department staff in the event of an emergency. Contact and phone tree information is outlined in that plan, as well as actions to be taken by those responsible for Crisis and Emergency Risk Communication. However, this Pandemic Influenza Crisis and Emergency Risk Communication Plan, which is integrated into the Chattanooga-Hamilton County Health Pandemic Influenza Response Plan, will ensure that those responding to the communication needs in the time of an emergency have further resources, contact information, and outlined actions at their disposal. The primary purposes of initializing a communication response plan for pandemic influenza include:

1) Responding to information needs efficiently and consistently

2) Communicating accurate and timely information to staff, target audiences and stakeholders.

III. Assumptions

A. In the occurrence of an influenza pandemic, crisis and emergency risk communication (CERC) will be critically important during all phases and implementation of a response. The general public, health care workers, first responder agencies, and elected leaders in Hamilton County will need continuous updates on the status of the pandemic outbreak, impacts on critical services, the steps being taken to address the incident, and steps the public can take to protect themselves.

B. This crisis and emergency risk communication plan for pandemic influenza is integrated in the Chattanooga-Hamilton County Health Pandemic Influenza Response Plan.

C. The Chattanooga-Hamilton County Health Pandemic Influenza Response Plan is a part of the Tennessee Emergency Management Plan, including operations of the Emergency Operations Center and Joint Information Center.

D. The Local Health Department point of contact for crisis and emergency risk communications in the Chattanooga-Hamilton County Pandemic Influenza Emergency Response Plan is the Health Department's Public Information Officer (PIO).

E. In managing public health crises, the PIO will consider requesting the need for crisis and risk communication management through a functioning Health Department Crisis Communication Team. This decision will be based on the size, magnitude, duration and the impact the crisis has on the community/county and the need for multi-agency involvement and outside resources. The Emergency Operations Center will decide if the Joint Information Center will need to be activated.

IV. Command and Control

A. Health Administrator

The ultimate policy decisions regarding the Crisis and Emergency Risk Communication plan for influenza pandemic will lie within the Health Administrator's responsibility. Depending upon the incident, the Administrator or a designated representative will develop a Crisis Communication Management structure. Crisis Communication Management may be structured in one of three ways:

1) The Health Administrator manages communications alone in cooperation with the Public Information Officer and Director of Community Health Services

2) The Health Administrator convenes a health department Crisis Communication Team

3) The Health Administrator requests the formation of a Joint Information Center.

It is recognized that the structure of the crisis communication management will be fluid depending upon phase of the event. The Administrator will continually evaluate the crisis communication management structure and adjust the structure as necessary to meet the demands of the event.

B. Public Information Officer

The Chattanooga-Hamilton County Health Department Public Information Officer will be designated for the responsibility of ensuring rapid dissemination of uniform messages and information regarding a pandemic influenza emergency to both primary and secondary audiences in close collaboration with state communications officials.

The PIO is responsible for:

1) Crisis and emergency risk communication planning and response, including:

a) Serving as Incident Command Public Information Officer if designated to do so by the Incident Commander

b) Preparing messages to be cleared by Administrator or Crisis Communication Team that are: positive action, clear, consistent, repeats guidance, corrects misinformation, and acknowledges public concern.

c) Training spokespersons on communicating the message with each audience type

d) Reviewing questions to answer for the general public;

2) Coordinating information updates before, during, and after the pandemic influenza emergency;

3) Creating/obtaining local public information products (press releases, web pages, scripts for hotlines, information to partners/stakeholders, etc.) before, during, and after a pandemic influenza emergency

a) Messages will be synchronized with state and federal communications

b) Once messages have been developed and approved; the PIO will be responsible for contacting primary, secondary, and community partners.

C. Health Department Crisis Communications Team

All crisis and risk information will be verified, cleared, and approved by designated staff, technical advisors, or spokespersons. If the decision is made to assemble a Health Department Crisis Communication Team, the team will include at a minimum:

1) Public Information Officer
2) Director of Community Health Services
3) Administrator (or representative)
4) Health Officer

Other personnel may be added to this core team at the discretion of the Administrator.

D. Joint Information Center

Emergencies which affect other agencies will require the activation of the Joint Information Center (JIC) by the Emergency Operations Center (EOC). If the decision is made to establish a joint information center (JIC), the Health Administrator shall designate a representative to the JIC. The initial meeting for the JIC will be held in the 911 Center Conference Room. Press briefings/conferences will be held at the pavilion at the River Park.

V. Operations

Key Actions by Phase

A. Phase I: Pre-Event Communication Preparations

Priority action steps of Phase I include educating the public prior to a pandemic influenza event and enhancing preparedness efforts by updating and drilling plan procedures and contacts. Action steps are shown in Table 1 on the next page.

B. Phase II: Event Communication Actions

Once a pandemic influenza event has occurred that requires response from the Chattanooga-Hamilton County Health Department, recommended action steps are shown in Table 2.

Table 1. Phase I Action Steps.

Action	Decision Authority	Lead Person	Implemented by
1) Identify persons responsible for the health department's crisis and emergency risk communications planning and response.	Administrator	Director of Community Health Services	PIO
2) Review and update existing Crisis and Emergency Risk Communication plan for pandemic influenza.	Administrator	Emergency Preparedness Coordinator	PIO
3) Update Crisis Communication Team (CCT) emergency information, media directory, primary and secondary contacts, and community partner lists.	Administrator	Director of Community Health Services, CCT	PIO
4) Aid in community education about the potential for an influenza pandemic (Appendix H).	Administrator	Director of Community Health Services	CCT, Emergency Preparedness Staff, PIO, other appointed staff
5) Communicate with community partners and stakeholders about pandemic influenza planning and coordination of services.	Administrator	Director of Community Health Services, Emergency Preparedness Coordinator, COOP team	COOP, Emergency Preparedness Staff, PIO
6) Draft key messages, press release templates, and frequently asked questions prior to a pandemic influenza emergency.	Administrator, CCT	Director of Community Health Services	PIO
7) Ensure that all materials developed in advance are available in the dominant languages of the county and have considered special needs populations.	Administrator	Director of Community Health Services	PIO, CCT, Communication Specialist, language coordinators
8) Coordinate communication drills to test equipment and processes on an ongoing basis.	**Administrator**	**Director of Community Health Services**	CCT, PIO

Table 2. Phase II Action Steps.

Action	Decision Authority	Lead Person	Implemented by
1) Determine the activation of the Crisis Communication Team (CCT).	Administrator	Director of Community Health Services	PIO
2) Determine which primary and secondary contacts to notify.	Administrator	Director of Community Health Services	PIO
3) Serve as Incident Command Public Information Officer if authorized by Incident Commander.	**IC Incident Commander**	**Director of Community Health Services**	PIO
4) Handle and direct all media requests.	Director of Community Health Services , PIO	PIO	PIO
5) Determine an appropriate channel of communication and key messages based on the extent of the pandemic influenza crisis, including press releases; briefings; time, date and location and frequency of briefings; Will linguistic services be needed?	Administrator, PIO, CCT	Director of Community Health Services	CCT, PIO, Cultural and Linguistic services coordinator.
6) Designate one or more spokespersons.	Administrator	CCT, Administrator	PIO
7) Inform health department staff of information prior to it going to the media: The PIO inform all Health Department staff of the situation and provide the staff with fact sheets. Specific instructions shall be given as to what to tell the public when they call including any special phone numbers for additional information.	Administrator	Director of Administrative Services	PIO
8) Development and execution of media plan, channels of communication, and briefing materials***.**	Administrator, CCT	Director of Community Health Services, Directory of Administrative Services, PIO	PIO, CCT, designated staff

Table 2. Phase II Action Steps (Cont'd).

9) Disseminate information to special needs populations (limited literacy, homeless, limited English proficiency, persons living with disabilities, and the elderly) and evaluate if direct community outreach needs to be conducted.	Administrator	Director of Community Health Services	PIO
10) Determine if the T-HAN and the Health Alert Website function should be activated.	Administrator	Director of Community Health Services	PIO
11) Determine if the Public Hotline should be activated.	Administrator, CCT	Director of Community Health Services, PIO	Designated Staff; Hotline Manager
12) Rumor Control: All staff answering calls for the Health Department shall report to PIO any information being stated by the public that is different from the facts they have been given. PIO will also monitor media messages for rumors. The Administrator will develop a strategy to address the rumor if the situation warrants such action.	Administrator	Director of Community Health Services	PIO, all Staff
13) Surveillance of media coverage, briefings, and communication to public. Should be reported to administrator.	Administrator	Director of Community Health Services	PIO, CCT, designated staff
14) Documentation of Actions: notes kept at meetings, filing of documents and communication receipts.	Administrator	Director of Community Health Services	PIO, CCT

In action step 2, it will be determined which contacts to notify in the event of a pandemic influenza emergency. Crisis and emergency risk communication messages will be delivered to primary or "inside" audiences first by the designated dissemination format (depending on the extent of the pandemic influenza emergency):

1) Primary Contacts
   a) Federal Level
      i) Health Officials
      ii) Elected Officials
   b) State Level
      i) Health Officials
      ii) Elected Officials
      iii) State Public Information Officer
   c) Local Level
      i) Health Department Staff and Crisis Communication Team
      ii) Health care providers and emergency responders
      iii) Local Officials: county mayor, city mayor, county executive, and district attorney
      iv) Primary media
      v) Area community partners and stakeholders
      vi) Community leaders
      vii) Advocacy groups for special needs populations
      viii) Health Department clients
      ix) Medical association chapters
      x) Large municipalities
      xi) Schools
      xii) Volunteers

Information updates will be repeatedly provided to the primary contacts by different channels of communication. The contacts information and mode of message are outlined in Appendices C and D.

2) Media

   The media will also be contacted by the PIO. The media contact list should be updated on a biannual basis.

3) Secondary Contacts

   The next step for the designated PIO, with help of the Health Department Crisis Communication Team (if activated), is to contact secondary or "outside" audiences:

   a) Secondary media
   b) General public

      Special Populations: limited literacy, limited English proficiency, homeless, elderly, and persons living with disabilities
   d) Secondary agencies and businesses

4) Community Partners and Stakeholders

Community partners and stakeholders will also be informed via phone, blast fax, and email. Community partners and stakeholders include:

a) Community Partners and Stakeholders
b) Other County Health Department Staff

5) Resources

a) Internet Resources for drafting crisis messages for pandemic influenza are available.
b) The Health Administrator and the Community Health Services Directors are responsible for making sure the PIO has the appropriate resources to execute his/her operation plan. The PIO will also work with the Director of Administrative Services to locate and use the equipment. Resources and equipment will be needed to execute information during an event (Table 3).

6) Contacting Community Partners and Stakeholders

a) Staff Communication

First, the PIO and the Director of Administrative Services will inform all Health Department staff of the situation via email or intercom, and provide the staff with fact sheets and/or the press release. Specific instructions shall be given as to what to tell the public when they call including any special phone numbers for additional information. Regular conference calls will be held among designated health department personnel to update the situation.

b) Communication with primary and secondary contacts, and other informational partners/stakeholders

The Administrator will determine if THAN will be activated to disseminate information to healthcare providers and other THAN stakeholders. The PIO will provide information for the Health Alert Website. Primary, secondary, and other community partners and stakeholders will be contacted by phone, email, and/or blast fax by the PIO upon the discretion of the Administrator and/or Crisis Communication Team. Updates of pandemic influenza status and response may be conducted via conference call to relevant stakeholders.

c) Special Needs Populations

All channels of communication will consider special needs populations and make accommodations if possible. Pre-event and event information will be translated into Spanish.

7) Channels of Communication

Depending on the extent of the pandemic influenza emergency, the following media strategies will be determined by the Health Administrator and/or Crisis Communication Team (Table 4). All aspects of communication will be coordinated with the state communications team to ensure coordinated and accurate messaging.

a) Website

The PIO will establish and maintain a website specifically for pandemic influenza. This website will contain regularly updated information for health care providers and the general public. The Public Information Officer will assure that the content of the website is current and that materials approved by the Crisis Communication Team, Emergency Preparedness Coordinator, and Administrator are posted.

b) Managing General Public Phone Calls/Public Hotline During the early hours of an event, the public will be calling the Health Department phone numbers with which they are most familiar, or the designated hotline number. All Health Department staff will be provided with fact sheets, press releases, and/or public information scripts from which they can provide information to the public during the early phases of the event. Nurses, health educators, and case workers will also be asked to operate telephone lines to provide recommendations to persons needing to seek professional medical care and to provide the public with information on how to protect themselves and others from infection. Callers will defer to the state-wide Pandemic Influenza Hotline based at the State's Communicable and Environmental Disease Services hotline that will provide recorded information to answer basic non-clinical questions. Should the magnitude of the event warrant the activation of the Public Hotline, the Administrator shall instruct the Hotline Manager to activate the Center. The Hotline Manager shall then notify Hamilton County Telecommunications that the Hotline is being activated and the number of phones to put online. Telecommunications shall make the necessary changes in the telephone configuration to dedicate the phone lines and establish the stations. The Hotline Manager will work with Health Department maintenance to set up the room. The Hotline Manager will also alert the pre-designated phone operators to report to the hotline center and will establish shifts if the event will require 16 or 24 hour coverage. Once established, the Hotline phone number will be published to the public. Fact sheets and press releases will continue to be sent to all staff even after the Hotline is operational.

c) Fact Sheets and Message Maps

The PIO will draft a fact sheet which contains a summary of pandemic influenza and information about the event including all details which are to be released to the media. Copies of the fact sheet should be provided to the Administrator, Emergency Preparedness Coordinator,

and the Crisis Communication Team for approval. Message Maps may also be developed to provide key talking points for spokespersons or health department staff handling public inquiries. At the discretion of the Administrator, the information may also be reviewed by the County Mayor and/or the County Attorney. If calls are coming in from the general public, the PIO will provide staff with fact sheets for reference purposes. If possible, the PIO will ensure that translated materials will be made available.

d) Brochure

Pre-event and during the pandemic influenza event, brochures will be developed to provide basic information on pandemic influenza, symptoms, treatment, and prevention. The PIO will post the brochures on the health department website, and distribute them to health department clients and staff. If possible, the PIO will ensure that translated materials will be made available.

e) Press Releases

If a press release is to be written and distributed, the PIO shall prepare it based upon the information contained in the fact sheet. Copies of the press release should be provided to the Administrator of the health department for approval. At the discretion of the administrator, the County Mayor and/or the County Attorney may also review the information. The PIO will then blast fax and e-mail the press release to newspaper, television and radio outlets on the health department's media directory list. The PIO will also send copies of the press release to the Public Information Officer of the Tennessee Department of Health as well as to all health department staff. If possible, the PIO will ensure that translated materials will be made available.

f) Press Briefings/News Conferences

If a news conference is held, the Public PIO in consultation with the Director of Administrative Services shall arrange logistics including when, where and how the conference/briefing will be held. The default press room for the health department is the Community Room located on the 4th floor. The Administrator and/or Crisis Communication Team will determine who will represent the health department and who will appear at the news conference.

g) Radio Announcements/PSAs

To target low-literacy populations, radio announcements will be used to disseminate pre-event educational information and crucial messages during an event. The Administrator and/or Crisis Communication Team will determine the radio message script. Messages will be broadcasted on primary radio contacts.

h) Spokespersons

Information relative to the pandemic influenza response may be made any staff person designated by the Administrator or Crisis Communication Team. Contact information of possible spokespersons are listed in Appendix B. Medical or clinical information shall be communicated by the Health Officer or other clinical personnel designated by the Administrator. If possible, the PIO will ensure that interpreters for non-English speaking populations will be made available.

i) Direct Public Outreach

The PIO will coordinate community outreach that will target special populations including: limited literacy, homeless, limited English proficiency, persons living with disabilities, and the elderly. Should there be a need to communicate directly with limited English proficiency populations, the Cultural and Linguistic services coordinator shall interpret/translate or arrange for interpretation/translation of all public information of an instructive nature. Health Department staff such as health educators, case workers, and lay outreach workers may be called upon during an emergency to assist in message dissemination such as passing out fliers and home visits. Community partners and faith-based groups will also be contacted to assist in delivering messages.

j) Health Alert Website Activation

Upon orders from the Administrator, the Communication Specialist will work with the County's Web Master to post a Health Alert on the Health Department's website. The Health Alert should describe the situation, the facts regarding the agent, how the public can protect themselves and any special instructions the public is to follow. Once established, the Website address will be published to the public.

k) Reverse 911

The Administrator or Crisis Communication Team will determine if messages will be sent out on the county Reverse 911 system, located at the Emergency Operations Center.

l) Radio/Police Scanner Channels

Police scanners will be used to monitor police and fire response. Ham radio, FSR radios, and 800 MHz radioswill be used to contact staff, responders, and/or the public at the discretion of the Administrator, Director of Administrative Services, and the Crisis Communication Team.

Table 3. Resources and Equipment Needed.

Resources	Point Person(s)	Location	Persons designated to use
Contact information for federal, state, and local level audiences	PIO	Pandemic Influenza Crisis Communication Plan, All Hazard Crisis Communication Plan	**Health Department Public Information Officer, Crisis Communication Team, and Director of Administrative Services**
Phone (HOTLINE # 423-209-8393) and interpreters for hotline	Hotline Manager, Director Administrative Services		
Broadcast fax server access (for blast faxing):	PIO, Director Administrative Services, Community Health Services staff	2nd Floor Administration, 4th Floor Health Promotion	
Computer and server access for website updates, email, and website access	PIO	Room 432, Community Health Services	
800 MHz radios (12)	Director Administrative Services	Administration 2nd floor	
Short FSR radios (50) with 1-2 mile radius	Director Administrative Services	Administration 2nd floor	
Ham radio	Director Administrative Services	Administration 2nd floor	
Satellite phone	Director Administrative Services	Administration 2nd floor	
Technical advisors for messages	PIO	Crisis Communication Team	
Reverse 911	Emergency Preparedness Environmental Scientist	Emergency Operations Center	

Table 4. Media Strategies.

Channels of Communication	Point Person	Source to get information out
a) Website	PIO	**Health Department Public Information Officer, Crisis Communication Team, and other designated health department staff**
b) Hotline	Hotline Manager	
c) Fact Sheets and Message Maps	PIO, Emergency Preparedness Coordinator	
d) Brochure	PIO, Emergency Preparedness Coordinator	
e) Press Releases	PIO	
f) Press Briefings/News Conference	PIO	
g) Radio announcements/PSAs	PIO	
h) Spokespersons	Crisis Comm. Team	
i) Direct public outreach	PIO, Community Health Director, Director Administrative Services, Director Case Management	
j) Health Alert Website Activation	PIO	
k) Reverse 911	Emergency Preparedness Environmental Scientist	
l) Radio/Police scanner channels	Director Administrative Services	

C) Phase III: Post-Event Communication Actions

Continual evaluation of communication strategies should be conducted during and after a pandemic influenza event. The following post-event actions are recommended to ensure the quality of the communication plan (Table 5):

Table 5. Phase III Action Steps.

Action	Decision Authority	Lead Person	Implemented by
1) Continual surveillance of media coverage, briefings, and communication to public.	Director of Community Health Services	Director of Community Health Services	PIO, Crisis Communication Team, designated staff
2) Conduct a “hot wash” or an immediate review of what went right and what went wrong and lessons learned during media events	Administrator, Director of Community Health Services	Director of Community Health Services	PIO
3) After first 48 hours: monitor change in public concerns and adjust messages to media accordingly.	Administrator	Director of Community Health Services	PIO, Crisis Communication Team
4) Rotate staff every 8 hours as needed.	Administrator	Administrative Services Director	Administrative Services Director
5) Conduct a process evaluation of the communication messages and procedures, change communication plan if needed.	Administrator	Director of Community Health Services	Director of Community Health Services, PIO

VI. Communication Plan Development

A. Annual review of the Crisis Communication Plan is the responsibility of the Health Department PIO, including updates on primary, secondary, and community partner contact lists.

B. The media contact list should be updated on a biannual basis by the PIO.

VII. Authorities and Reference

A. Chattanooga-Hamilton County Health Department Emergency Policies and Procedures Plan

B. Incident Command System

C. Health Administrator

D. Community Health Services Director

Section 9 Workforce and Social Support

I. Purpose

Because the health care infrastructure will be overwhelmed by the demand for services during a pandemic outbreak, the purpose of this section is to develop strategies which incorporate the full range of community resources. Resource lists containing contact information for various support services will be provided to victims and/or public health workers. Although not the primary role of the Chattanooga-Hamilton County Health Department (CHCHD), the department's efforts to facilitate access to these services will help achieve the following important objectives:

1) To readily provide information and contact numbers for local volunteer groups, agencies or faith based organizations willing to assist in meeting the physical, financial, emotional and spiritual needs of individuals affected by pandemic influenza as responders or as victims

2) Minimize the emotional, physical, social, and financial stresses placed upon individuals requested or required to be isolated because of illness or quarantined as a result of exposure to a pandemic influenza case

3) Minimize the barriers that could prevent individuals from complying with health department instructions to stay home when sick or to be quarantined

4) Minimize the burden of legal actions carried out by health department legal counsel to compel cooperation

5) Minimize fear and resistance to social distancing measures imposed in the affected community

6) Facilitate meeting the physical, mental and spiritual needs of responders in the community (e.g., healthcare workers)

Note: Public health leadership, based on knowledge of the specific virus, may alter the strategies that have been outlined.

II. General Information

The diverse community resources must be coordinated so as to support an organized and integrated response supportive of those who are ill as well as the health care workers and community volunteers. The major providers of support services include volunteer organizations, profit or not-for-profit non-government organizations, government agencies and faith based organizations. Names and contact information of multi-service and single service organizations are listed in Attachment A.

The presence of pandemic influenza in a community will affect the community in ways similar to other natural disasters, except that the response to pandemic influenza may be sustained for weeks and it may be 1-2 years before the disease is eliminated and the risk is over. An influenza outbreak will likely be associated with much more illness and many more deaths than seasonal flu outbreaks. This will cause considerable psychosocial and economic disruption. Extreme stress will fatigue persons involved in responding officially or unofficially to the pandemic. Addressing workforce and community needs will help the public cope in a pandemic, supporting the effective implementation of medical and non- medical public health measures.

An influenza pandemic may pose substantial short-term and long-term physical, personal, social, and emotional challenges to individuals and or the community at large. Victims requiring long term support services or presenting issues for recovery may also consider the availability of local resources for long term support.

A. Examples of affected groups include:

1) Patients
2) Healthcare workers
3) Families of patients and healthcare workers
4) General public
5) Children, adolescents and the elderly
6) People with mental or physical disabilities
7) Hard to reach populations

B. Support service needs in this section are grouped into 7 categories:

1) Major multi-disciplinary organizations
2) Social support, including mental health
3) Food and medication
4) Financial issues
5) Child care/elderly care
6) Employment and school issues
7) Special needs services

The health department cannot over-emphasize the vital importance of social distancing, including self-imposed isolation (staying home when sick until not contagious) to protect the community. Support for patients and families experiencing serious illness and deaths will be vital to helping them cope. In addition to resources listed here, the federal government posts information about pandemic preparedness and response at www.pandemicflu.gov.

C. Implementation during pandemic influenza response:

1) A resource list of local support services available in the community will be made widely available and published in easily accessible local newspapers and local television media (e.g., food bank, local churches).

2) In cases where immediate needs are evident to the health department personnel interacting with a patient, the staff person should offer to refer the patient to these resources.

3) The health department will recommend appropriate resources to healthcare facilities to provide relief to healthcare facility staff.

III. Response Resources List

The Chattanooga-Hamilton County Health Department's plan will minimize social and economic disruption to the greatest extent possible. The pandemic response resource list (Attachment A) for workforce and social support has been developed using organizations

already identified as resources for the community. Areas of service targeted include child care, counseling, crisis intervention, disaster relief, elderly/adult day care, emergency assistance for food/rent/utilities, financial counseling, health services, information and referral, senior services, special needs services and transportation. The resource list will serve as a directory for the provision of food, medical and other essential support for persons confined to their homes or otherwise affected by a pandemic outbreak.

A pandemic will likely be characterized by a high level of absenteeism in the workforce as people become ill or stay at home to care for sick relatives. Persons may be confined to their homes by choice, out of fear of being exposed and becoming ill or by direction from the local Health Officer. These measures, whether self inflicted or decreed, will create situations where citizens of Hamilton County will require assistance financially and emotionally. There will likely be situations in which care providers for children or the elderly will become ill and unable to care for their children or elderly parents. Some instances may require children whose parents are deceased to seek alternative housing until relatives can be notified or other arrangements can be made. Individuals may have to face restrictions that limit their freedom to mourn for and bury their dead in a timely manner according to cultural/religious beliefs. The pandemic resource list will provide contact information for agencies who can address these situations.

IV. Social Support (Mental Health)

Social support refers to all services pertaining to the prevention or control of distress and anxiety, in addition to more serious mental health issues. The psychological effects of the increased media coverage as well as the public health measures which are implemented may require the limited, situation-appropriate activation of the Pandemic Influenza Response Plan. There will be an increased demand on the Public Health Workforce as the pandemic progresses. Standards for number of hours worked and required hours of rest between shifts will be determined by the Chattanooga-Hamilton County Health Department as public health response to a pandemic outbreak progresses. A current call-down list of public health employees will be maintained for support replacement as needed. Volunteers from the Chattanooga-Hamilton County Health Department's Volunteer Database will be requested to supplement the public health staff response. Making the work environment safe and productive will be essential to enhance the number of staff reporting for work. The Health Department will provide personal protection supplies for staff. Educational materials will be provided to staff regarding the modes of transmission of influenza and the infection control measures. Needed staff will also be encouraged to create a family emergency plan (Attachment B) in advance of an emergency. Proactive efforts to address anxiety among both well and affected individuals during a pandemic will help prevent more serious mental health problems.

Psychological issues requiring intervention may include but are not limited to:

1) Increased anxiety levels by the general public and healthcare providers
2) Increased demand for health care
3) Stigmatization of the sick and those assumed to have been exposed
4) Psychological support for suspected cases placed in isolation and quarantine
5) Psychological support for those caring for the sick including health care providers and family members

During an acute outbreak, most anxiety can be relieved effectively by current and accurate medical information. The Chattanooga-Hamilton County Health Department

will have available a public pandemic information hotline and website to help reduce public anxiety by making accurate and timely information available.

V. Food and Medication

There are several options for fulfilling food and medication needs unmet by families and friends. Listed in the resource list are agencies identified who will offer financial assistance and/or prepare and deliver meals to victims who are without the necessary means to purchase and/or prepare food. Several factors will influence the need for these delivery services. Loss of work due to personal illness, caring for sick relatives, or quarantine will place a strain on income and the ability to purchase necessary essentials. In addition, a list of items for individuals and families to keep on hand helping prepare them for a two week isolation period can be found in Attachment C.

VI. Financial and Economic Issues

In the absence of a declared state of emergency, the ability of the state or Federal governments to provide financial compensation to affected individuals or to relax late payment penalties for utilities or other essential services is not known at this time. Victims of a pandemic influenza outbreak could face weeks without financial support due to illness, caring for sick relatives, quarantine or business closure. Many persons who have never required financial assistance may face the need to ask for financial aid. In the event that the state government does not declare an emergency, persons in need of economic assistance will have to turn to local volunteer relief organizations. Financial assistance will be provided to qualified victims who have financial issues related to a pandemic outbreak. Some agencies will assist with temporary housing for victims who have lost their place of residence due to financial difficulty.

VII. Child and Elderly Care

In some cases, housing and care will be required for several days or weeks for the children or elderly dependents of ill individuals where family or friends are not available to care for them. Placement can be difficult if the dependents are exposed and must be monitored for signs of disease. The Chattanooga-Hamilton County Health Department's resource list (Attachment A) has pre-identified agencies and organizations that will provide day care and night care for children and elderly adults. Home visiting programs and hotlines will identify these situations where they are not self reported and assist with placing individuals in the proper agency for care.

VIII. Employment and School

The risk of losing a job or falling behind in school is an important barrier to compliance with social distancing orders, such as staying home if sick. Local businesses are encouraged to have their own pandemic influenza plan which will address issues such as extended illness, caring for sick relatives, quarantine and isolation, or fear of reporting to work and being exposed. Area schools and universities are also encouraged to create their own plans to address absenteeism due to social distancing. Hamilton County schools and private schools will follow the Health Officer's mandate to close schools and any absenteeism will be reflected accordingly. See Section 7, Supplement 3 for School Guidance.

IX. Special Needs Services

During a pandemic outbreak, many situations may occur which will require services for the special needs populations. Cases may arise where dependents that physically, mentally or culturally rely on care givers will need assistance due to the care giver becoming ill or deceased. Instances which may require special needs services may include but are not limited to:

1) Language barriers
2) Fear of deportation
3) Cultural differences
4) Homeless population
5) Physically or mentally challenged population
6) Mental illness
7) Other vulnerable and hard-to-reach populations

The Chattanooga-Hamilton County Health Department's Volunteers include interpreters for many languages, including sign language. The pandemic resource list also includes assistance for these populations (Attachment A).

Attachment A: Hamilton County Pandemic Influenza Response Resource List.

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Attachment A: Hamilton County Pandemic Influenza Response Resource List (Cont'd).

CONFIDENTIAL INFORMATION

Attachment A: Hamilton County Pandemic Influenza Response Resource List (Cont'd).

CONFIDENTIAL INFORMATION

Attachment A: Hamilton County Pandemic Influenza Response Resource List (Cont'd).

CONFIDENTIAL INFORMATION

Attachment A: Hamilton County Pandemic Influenza Response Resource List (Cont'd).

CONFIDENTIAL INFORMATION

Attachment B. Individual and Family Checklist

Pandemic Flu Planning Checklist for Individuals & Families

You can prepare for an influenza pandemic now. You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family. This checklist will help you gather the information and resources you may need in case of a flu pandemic.

1. To plan for a pandemic:

- ❑ Store a two week supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.
- ❑ Ask your doctor and insurance company if you can get an extra supply of your regular prescription drugs.
- ❑ Have nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
- ❑ Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.
- ❑ Volunteer with local groups to prepare and assist with emergency response.
- ❑ Get involved in your community as it works to prepare for an influenza pandemic.

2. To limit the spread of germs and prevent infection:

- ❑ Teach your children to wash hands frequently with soap and water, and model the current behavior.
- ❑ Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.
- ❑ Teach your children to stay away from others as much as possible of they are sick. Stay home from work and school if sick.

3. Items to have on hand for an extended stay at home:

Examples of food and non-perishables	Examples of medical, health, and emergency supplies
❑ Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups	❑ Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
❑ Protein or fruit bars	❑ Soap and water, or alcohol-based (60-95%) hand wash
❑ Dry cereal or granola	❑ Medicines for fever, such as acetaminophen or ibuprofen
❑ Peanut butter or nuts	❑ Thermometer
❑ Dried Fruit	❑ Anti-diarrheal medication
❑ Crackers	❑ Vitamins
❑ Canned juices	❑ Fluids with electrolytes
❑ Bottled water	❑ Cleansing agent/soap
❑ Canned or jarred baby food and formula	❑ Flashlight
❑ Pet food	❑ Batteries
❑ Other nonperishable foods	❑ Portable radio
	❑ Manual can opener
	❑ Garbage bags
	❑ Tissues, toilet paper, disposable diapers

PandemicFlu.gov AvianFlu.gov

Family Emergency Health Information Sheet

It is important to think about health issues that could arise if an influenza pandemic occurs, and how they could affect you and your loved ones. For example, if a mass vaccination clinic is set up in your community, you may need to provide as much information as you can about your medical history when you go, especially if you have a serious health condition or allergy.

Create a family emergency health plan using this information. Fill in information for each family member in the space provided. Like much of the planning for a pandemic, this can also help prepare for other emergencies.

1. Family Member Information:

Family Member	Blood Type	Allergies	Past/Current Medical Conditions	Current Medications/ Dosages

2. Emergency Contacts:

Contacts	Name/Phone Number
Local personal emergency contact	
Out-of-town personal emergency contact	
Hospitals near: Work	
School	
Home	
Family physician(s)	
State public health department (See list on www.pandemicflu.gov)	
Pharmacy	
Employer contact and emergency information	
School contact and emergency information	
Religious/spiritual organization	
Veterinarian	

Attachment C. Emergency Kit Guide

Food and Water

One gallon of water per person per day. Keep at least a 3 day supply.
Food—Keep ready to eat foods such as:
Canned meats (tuna, chicken)
Canned fruits and vegetables
Canned juices
Granola bars
Protein bars
"Comfort" foods like cookies or hard candy
Infant foods
Pet foods

Personal Medications

Any prescription drugs you are currently taking
Vitamins
Medical information—*place this in an envelope labeled with large letters. Put in this anything you think an emergency room doctor would need to know such as allergies, list of medical conditions, medications you are currently taking, strength and dose of medications, physician name and phone number, pharmacy used, prescription numbers, insurance cards, out of state contact phone numbers. Seal this envelope in a large, clear baggie.*

First Aid Kit

Assemble a first aid kit for your home and one for each car.

- (20) adhesive bandages, various sizes
- (1) 5" x 9" sterile dressing
- (1) conforming roller gauze bandage
- (2) triangular bandages
- (2) 3 x 3 sterile gauze pads
- (2) 4 x 4 sterile gauze pads
- (1) roll of 3" cohesive bandage
- (2) germicidal hand wipes or waterless alcohol-based hand sanitizer
- (6) antiseptic wipes
- (2) pair large medical grade non-latex gloves
- First aid tape, 2" width
- Anti-bacterial ointment
- Cold pack
- Scissors (small, personal)
- Tweezers
- CPR breathing barrier, such as face shield

Non-Prescription Drugs

Aspirin or non-aspirin pain reliever
Anti-diarrhea medication
Antacid
Syrup of Ipecac (use to induce vomiting if advised by the **Poison Control Center**)
Laxative
Activated charcoal (use if advised by the **Poison Control Center**)

Sanitation

Toilet Paper, towelettes
Soap, liquid detergent
Feminine supplies
Personal hygiene items (deodorant, toothbrush, toothpaste, etc.)
Plastic garbage bags, ties (for personal sanitation uses)
Plastic bucket with tight fitting lid (can be used as toilet)
Disinfectant
Household chlorine bleach

Tools and Supplies

Mess Kits, or paper cups, plates and plastic utensils
Extra set of keys for home and cars
Battery operated radio and extra batteries
Flashlight and extra batteries
Cash or traveler's checks, change
Non-electric can opener, utility knife
Matches in a waterproof container
Candles
Paper and pencil
Shut-off wrench (to turn off household gas and water)
Plastic sheeting
Duct tape
Map of the area (for locating shelters)

Miscellaneous Items

Disposable Camera with flash
Books or magazines
Deck of Cards
Electronic games with extra batteries
Items to entertain children

PERSONAL FILES

Bank account and investment records
Recent tax return
Certificates of birth, marriage, divorce, etc.
Social Security cards
Titles and deeds
Emergency cash
Insurance policies
Immunization records
Photocopy of Driver's License
List of credit card accounts and phone numbers
Forms of identification (copies of passport, driver's license)
Safe deposit box key (store second key with trusted friend)
Wills, living wills, advance directives, and powers of attorney
Household inventory (Videotape works well. Keep copy in safe deposit box or with a friend.)
Contact information for: financial institutions, employer, insurance agents, friends and family, others.